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Cut-Presser Designing..... May 28
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Textile World

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Textile World

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In Times Like These

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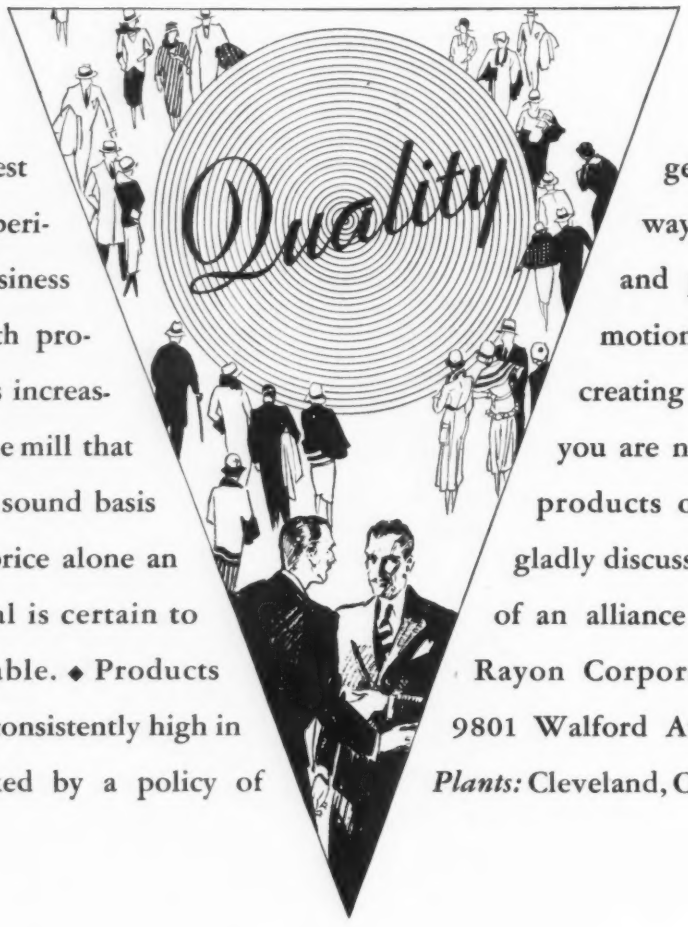

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May 14, 1932

Textile World

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Editor: Douglas G. Woolf

Not Just Another "Week"

AFTER we had ordered cereal for breakfast in Providence one day last week, we noted from the menu that the country was in the midst of National Egg Week. We didn't change our order.

On the contrary, we began to wonder about these "weeks." Did the country at large know it was supposed to glorify the American egg for six days? If so, what was it doing about it? Would such action, if any, help to relieve the over-production which we presumed existed in eggs?

And then we stopped short. We remembered our own enthusiasm for National Cotton Week, scheduled for May 16-21. Was our interest in that event due merely to our connection with the industry it represents? Was this merely another "week" which would come, and go, and make room for grapes or ham or pickles?

▼

Through this self-analysis, we learned something about our own attitude at least.

We found that "weeks," as such, didn't appeal to us very much. We doubted that a slogan on a menu, or a poster in a store, would affect the country's buying habits materially. But we came to the conclusion that, as one step in a *continuing* campaign, a "week" could be made effective.

That, we believe, is just what National Cotton Week is. It is not six days during which people are urged to wear cotton, but the high-point in a year of promotional activity. Furthermore the year itself has been one more in a series of years of such effort.

From the day when, some years ago, the National Association of Cotton Manufacturers first developed its traveling style exhibit, there has been a continuing campaign in cottons—a campaign singularly free, in our opinion, from ballyhoo. There has been a consistent and conscientious attempt to inform people regarding the versatility, the attractiveness, and the economy of this particular fiber.

▼

Into this campaign have gone the efforts of the Cotton-Textile Institute, through its New Uses Section; the admirable work done by the Durene Association of America; the pioneering activities of women's organizations and civic groups throughout the country and particularly in the South; and the cooperation of many other bodies too numerous even to list.

As the result of this combined work, National Cotton Week is not merely another "week." People are not merely told to wear cotton; they are approached on the basis of information and education which have been supplied them for months, or rather for years.

We doubt if the most enthusiastic members of the cotton industry realize fully the effect of sound promotion upon the progress of that industry during recent years. And of that promotion, National Cotton Week is a symbol.

The Week in Textiles

as Reflected in This Issue

General

How Durable Are Textiles?
Tensile strength is no indication of durability, which must be determined by a suitably devised abrasion test, declares Adolf Rosenzweig, internationally known textile scientist. This article, which is the result of years of study and experiment, is appearing simultaneously in one leading textile journal in each of the important manufacturing countries of the world. *(page 24)*

Brands as Guide
Brands are used more frequently by women in buying hosiery than for any other outer garment according to a survey of brand influence on consumer buying conducted by two members of the clothing department, Iowa State College. *(page 30)*

Figured Effects in Narrow Fabrics
By the use of more than one system of filling the field of narrow fabric designing is greatly broadened. Methods of incorporating these extra fillings into a fabric to produce figures, or to add weight, thickness or firmness to the material are described. *(page 34)*

New Products
An open forum on the place of new products in the present struggle by manufacturers to hold or increase their market was held. *(page 41)*

Cotton

Neps and Accidents
Neps in the card room and the general subject of accident prevention were discussed at the organization meeting of the Northern North Carolina and Virginia Division of S. T. A. at Greensboro. Culver Batson was elected chairman. *(page 28)*

Cotton Sentiment Better
Sentiment in cotton was improved this week on the chance that tax, bonus and other Washington problems were nearing settlement. *(page 53)*

Yarn Checked
Last week's decline in cotton hit yarns at a time when spinners had been hoping for stability. *(page 53)*

Cottons Dip and Steady
Cottons sank to new lows last week and this week had regained only a small fraction. Mills are unwilling to sell ahead at bottom figures. *(page 57)*

Wool

Scope of Advisory Board
Newly formed Wool Industry Advisory Board aims to be coordinating force for all divisions, as indicated at New York meeting. Col. Chas. F. H. Johnson, chairman of board, outlines suggested broad policy. *(page 29)*

Bright Colors, Rough Weaves
Some interesting coating fabrics exhibiting unusual weave and color effects are discussed from the manufacturer's view point. A definite trend toward bright colors and rough weaves is noted. *(page 32)*

More Flexible Style Policy
A more flexible style policy has been adopted by the Bigelow-Sanford Carpet Co. *(page 40)*

Worsted Yarn Production
Worsted yarn production in 1931, as given in a survey by the Wharton School of Finance & Commerce, was near the 1929 peak. *(page 41)*

Blending Worsted Tops
A method of blending worsted tops from slivers having different weights is described and illustrated with concrete examples. *(page 48)*

Yarns Need Quality Selling
Artificial competition has created a serious problem for worsted yarn mills because of failure to sell individual lines on merit. Spinners undersell each other, despite conceded differences in quality, resulting in price weakness as described in TEXTILE WORLD Analyst *(page 51)*

Yarn Buyers Cautious
Worsted yarn competition goes merrily on and buyers are still holding off. Spinners are gradually subscribing to the principle that weak prices never sold an extra pound. *(page 53)*

Wools Without Stimulus
The wool market, without stimulus, has shown little change. *(page 55)*

Weavers Resist Break
The break in price of lightweight wool goods is meeting with some resistance from leading mills. Fall orders stress glen plaids. *(page 57)*

The Textile Outlook

NEW low prices have been touched in several branches of the textile industry recently. Of course price weakness is the logical result when anxiety to sell meets buyer indifference, but at present weakness is scaring off any revival of buyer interest and prices are unlikely to recover until some branch of the industry tries the unusual experiment of holding quotations on a flat take-it-or-leave-it basis. This is an excellent time to try this, since operations could scarcely be smaller no matter what sellers do. Already leading underwear mills have sensed the market need along this line and withdrawn all lines for a time. Yarn sellers, both cotton and worsted, pushed to the wall are tending toward a more independent attitude of profit-or-shutdown. The hosiery field is curtailing as a price contest on mesh lines gathers force. Silks are already lightly produced but still weak in price. Cotton and cotton goods took a dip last week to new lows but came up a bit this week. Progress at Washington on satisfactory disposal of tax and bonus problems gave new cheer to raw cotton even though the coming crop looks so large as to check an advance. Perhaps the god of chance will call out his weevils and upset market calculations.

Knitting

Underwear Withdrawal Helpful

Heavyweight ribbed underwear mills' firmness in holding to decision not to accept business before June, has helped market tone; cheaper ribbed underwear lines may be dropped when embargo is lifted. *(page 40)*

Hold Back on Swimsuit Buying

Distributors continue to hold back on swimsuit orders, and manufacturers are doubtful of outlook. Duplicate business rare. *(page 59)*

Mesh Hosiery Outlook Puzzles

Current reductions in mesh hosiery prices have disturbed market, and situation is bewildering, but some mills expect summer to strengthen both demand and prices. *(page 59)*

Banner which calls Broadway's attention to "National Cotton Week." It is between Worth and Thomas Streets in the dry goods district

Silk

Harshness in Weighted Crepe

The various factors which may contribute to a harsh feel in weighted silk crepe are enumerated, and a method of tracing the source of the trouble is described. *(page 49)*

Dumping Weakens Silk

Weakness in Japan, due to dumping, served to soften price tone in the New York primary market, and some grades fell to new low levels, with little real demand. *(page 55)*

Thrown Yarn Output Now 20-25%

Continued reduction has brought thrown silk production down to 20 to 25% of capacity, and further curtailment is likely, due to slack demand. Spun silk is more cheerful though actual orders are slight. *(page 55)*

Broadsilk Prices Unsteady

Good buying of printed chiffons but at "chiseled" prices featured the broadsilk market this week. Fair georgette spot call. *(page 57)*

Rayon

Adjustable-Flange Warp Beam

Development of a paperless warp beam having adjustable flanges and embodying several interesting features is announced. Beams and beam heads of the old type may be used in its construction. *(page 46)*

Package Dyeing Machine

A new machine for dyeing rayon yarn in package form is described. A unique circulation system and the care which has been exercised in constructing the machine are said to insure unusually satisfactory results. *(page 47)*

Market Tone Improves

Market tone as regards prices has strengthened, following emphatic statement by important producer stressing need for stability. Current orders are light. *(page 55)*

Producers May Knit Fabrics

Rayon yarn producers seriously consider entering knit underwear fabric field, to protect this important outlet market against persistent de-grading of goods by tubular cloth manufacturers. *(page 62)*

Processing

Uneven Dyeing of Hose

Difference in the boiling-off time is responsible for differences in shade of various hose dyed in the same batch. Prolonged boiling off reduces the affinity of the silk for dyestuffs. *(page 49)*

Raw-Stock Dyeing Machine

A new raw-stock dyeing machine particularly suited for the dyeing of light, delicate shades is announced. That it is practically self-cleaning is an important feature. *(page 46)*

Filter-Thickener

A filter-thickener operating on the vacuum filtration principle has recently been developed. Applications where it is expected to prove of value in textile mills include pretreatment of boiler-feed and process water, purification of mercerizing liquors, clarification of wool-scouring liquors, and recovery of tin-weighting materials. *(page 47)*

The Business Outlook

LOOKING backward over the course of the basic business and financial indicators during the last two months, anyone not completely poisoned by the pervasive pessimism that has accompanied this depression must be somewhat impressed by the scattered signs suggesting that most of the destructive force of the decline may have spent itself, and that some sort of uncertain equilibrium is being slowly established at current levels. Although employment and retail trade appear still to be declining, activity in steel, building and other basic industries seems to have settled around an irreducible minimum. The precipitate downward movement of commodity prices has slackened, and in some instances ceased. The broad averages of security prices have been fairly steady for several weeks. All this has been accomplished by an impressive easing of money rates and of financial stringency and tension in domestic and foreign centers. Most striking of all is the slowly emerging evidence that the catastrophic contraction of credit in our Federal Reserve system has been checked. The business community is in a stronger position to resist any further shocks to confidence.—*The Business Week.*

How Durable Are Textiles?

A Way to Determine It

By Adolf Rosenzweig

Servalor Laboratory, Vienna, Austria

◆ *Ask the average textile man which is the strongest textile fiber, and he will answer "Silk." Ask him a similar question regarding durability, and he will probably base his second reply on the first and again answer "Silk." Mr. Rosenzweig, internationally known textile technologist, points out in this article that the latter reply is not correct and that strength and durability—at least in the case of clothing—are by no means the same thing.*

The author's arguments in favor of the abrasion test will find many sympathetic readers in this country. Our own experimenters have already put a great deal of thought, time, and effort into developing a satisfactory test of this character. In discussing the resistance to wear of various textile materials, however, it must be borne in mind that many factors, some apparently more important to the consuming public than durability, enter into the selection of raw materials and methods of manufacture—such as appearance, handle, warmth, and price.

SUPPOSE we had a group of fabrics all of the same weight, width, weave, count, and color, but made of different fibers, such as wool, silk, rayon, cotton, and flax. Suppose suits are made from the fabrics and worn sixteen hours daily by many men of the same weight and profession until they are pierced through by wear and tear. How would the durability of each compare with that of the others? If we cannot answer that question without such an impractical test, we ought to confess that we are not properly equipped to compare the qualities of textiles of different fibers or even of the same fiber. We are prepared to determine their durability neither absolutely nor relatively.

It is an alluring, but quite baseless, belief that the properties of a material which give it tensile strength also afford other kinds of molecular cohesion.

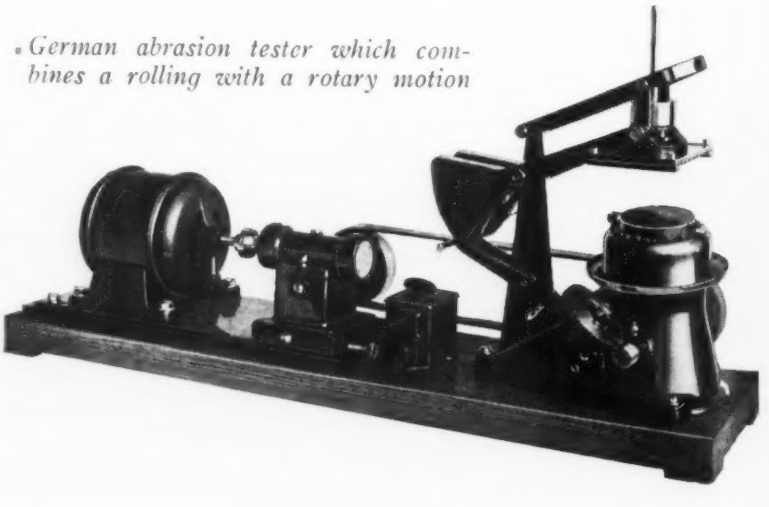
First of all we shall attempt to show that breaking strength or breaking length (the length of material which would break of its own weight) is not even a true indication of the ability of the material to resist tensile stress. When the writer was managing a silk mill, he noticed that the number of breaks in the warps on his 400 power looms, due to weakness of the silk, did not always correspond to the breaking length of the silk as previously tested, although he tested 200 threads per bale. He found that the reason for this lay in the insufficient number of threads which it was possible to test. Some of these bales, for example, contained a length of 75,000,000 meters; and, compared to this number of meters, 200 ends tested were about as important as 20. The importance of these tests was lessened by the fact that a tight warp contained 30,000 ends, of which it was desirable to weave off daily at least 10 meters. This was impossible when more than 30 ends were breaking in 8 hours. Consequently it was necessary that a length of 10,000 meters should contain not more than one weak point. This shows that the breaking length determined, as it must be, on a limited number of tests is inadequate to present a definite picture of the strength of the material as a whole.

Another reason why the tensile test does not accurately portray the true resistance of the material to stress lies in the speed at which the test must be conducted for practical use. If, by means of a tensile tester, we find that a good steel wire breaks at a certain load, we may impose a load of 9/10 that amount on the wire for a long time without any considerable lengthening taking place; but if we do the same with a silk thread we find that it will not support 9/10 of its breaking load more than a few minutes without elongating enormously. Within a month it will be unable to support even three-quarters of its breaking load. Hence, textile materials which have elongated are virtually worn, although their disorganization is not as yet visible. Therefore, it may be seen that elongation, which is generally considered an asset in textile materials, is actually a drawback. The steel industry understands this and considers smallness of elongation favorable.

Tensile Strength Not Durability

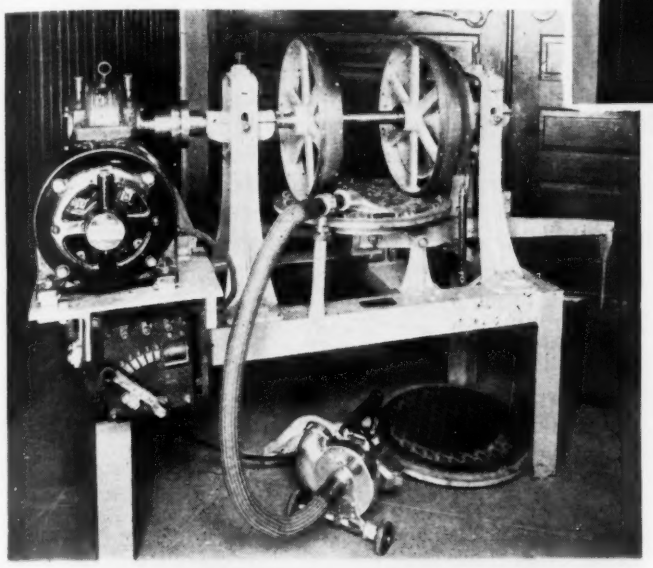
Tensile strength bears no relation to durability. We can perhaps best explain this by drawing a few parallels. The breaking length of tin is about 1/100 that of silk, but no reasonable man can doubt that tin will outwear silk many times. Steel wire has only about half the breaking length of silk, yet flexible tram rails are made of steel wire, rather than silk, because it has been found that such rails are worn out by friction from the wheels of the trolley, rather than by stress

German abrasion tester which combines a rolling with a rotary motion

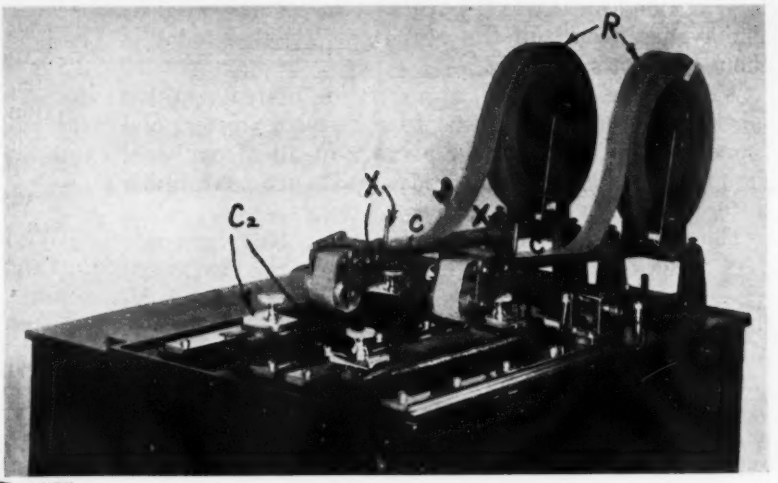


due to the weight of the trolley and its load. Leather, on a basis of its breaking length, should be outworn 13 times by silk; but the truth of the matter is that it is about a thousand times more durable than its breaking length would seem to indicate, as has been determined by the writer and as anyone may find out who is willing to try a mountain excursion on silk soles. Here the tensile tester is 13,000 times wrong!

On this question let us compare cotton and



American-built tester designed to reproduce actual conditions of wear on carpets



American-built abrasion tester which uses emery-cloth tape. R, tape; X, locks; C and C_2, clamps.

silk. The breaking length of average cotton is to the breaking length of silk as 12 is to 35. If the breaking length were a true indication of durability, silk ought to be three times as durable as cotton; but everybody, and especially the tailors, know that the strict contrary is true. The fact that in reality cotton is about 25 times more durable than silk is indicated by the following figures from the report of the Eleventh Cotton Congress, representing the experience of 3,000 loom-years (the figures on silk are from the writer's experience, representing about 1,000 loom-years):

Production of	*Silk*	*Cotton*
Looms per weaver	2	24
Picks per minute	135	185
Efficiency	66.66%	96%

Research has shown that the wearing of textiles in the case of clothing is due exclusively to rubbing or friction. Therefore, to determine the durability of textiles which are to be used for clothing, we may properly test their resistance to this action exclusively. Every other test is not only useless, but misleading.

To measure something means to compare it to a well-known constant value of its own kind. As we wish to learn the time it takes for textiles to be worn through, it is desirable to measure the time necessary to rub a hole into a test specimen. In conducting such a test we must avoid the error of rubbing a textile against itself, as some experimenters do, because such a test would consist of comparing the unknown to the unknown, a method which will not serve to improve our knowledge. Hence, our problem is to construct an apparatus rubbing in measured time, pressure, and velocity and with constant roughness of the abradant. It is necessary that the time required to rub a hole into the material be proportional to that required in actual service.

In developing such a machine in our laboratory we found that the measured pressure presented no difficulty. It proved to be more of a task to master velocity, because the energy of power currents changes frequently. The accuracy of the result was also threatened by the dust which was rubbed off and by the static electricity and heat created. When these hindrances were overcome, there remained the most knotty point—the constant roughness of the abradant; but finally this also was brought in rein.

We next had to establish the relation between time, pressure, and velocity; because these must be accommodated to the weight of the specimen to be tested. This relation depends upon the character of the abradant, which it was necessary to construct in such a way that each trial would not last too long and yet so that the abradant would rub smoothly without scratching or breaking the fibers. The dust found in the seams of worn clothes is nearly colorless, even if the garment is black; because the natural rubbing is so tender that it divides the fibers into very thin and consequently transparent layers. Therefore, care must be taken in such work to make certain that the dust which the abradant produces is also light gray and never shows the color of the test specimen. We found that the following relation satisfied conditions: Time is in inverse ratio to the root of the product of pressure and velocity.

Established Standard

To establish our standard, we procured thousands of the best woolen fabrics, assorted them, and at first tested only the more common weights, taking particular note of those which stood up the longest time under test. In this way we established a time which we called standard and assigned to it the numeral of 100. The time of resistance of all other specimens was calculated in a percentage ratio to this 100.

Our experience of many years and our position as scientific advisers to the Guild of Tailors and Dressmakers of Austria, which puts us in daily communication with men of practice, have disclosed that up to the beginning of this century the best English winter suits lasted as long as thirty years, but that since about 1910

those lasting as many as ten years have become very rare. The average length of life of a suit of clothes today is about two years.

We chose as our standard a duration of ten years on fabrics weighing 400 grams to the square meter, and found that on this basis the average of all of our wool samples was 20% of the standard, a figure conforming to the experiences of thousands of tailors.

The next task was to interpret those ten years into days of sixteen hours. With this in view, we distributed the 300 yearly working days among the four seasons on the basis of average temperatures obtained from the Meteorological Institute of Vienna. According to these data, men's suits are worn in Central Europe on 50 days of spring, 75 days of summer, 50 days of fall, and 125 days of winter. Since overcoats are worn only a few half hours in a day, the total number of sixteen-hour days on which they are worn include 12 in spring, none in summer, 13 in fall, and 15 in winter. These figures serve to explain, for one thing, why silk sleeve linings of overcoats sometimes last two gross years in spite of being of relatively weak material.

It will be seen that our percentages of standards gave us our relative values, and our consuming days of 16 hours gave us our absolute values. Having selected a standard for other textiles besides woolens, we did not require any knowledge of their practical duration, as this factor is proportional to the ratio of their standards.

All fabrics owe the duration of their life to the following four properties: hardness, elasticity, smoothness, and binding (weave). Hardness is best represented by cotton and linen; elasticity, by wool; and smoothness, by silk and rayon. Since textile processes do not appreciably affect hardness, this is the most reliable characteristic in the raw material and the best guarantee of durability. Short fibers are often responsible for poor elasticity. Excessive twists, such as are now found in crepes, also adversely affect this property. Elasticity is seriously injured by stretching out or by insufficient shrinking. Weighting causes roughness and is therefore always injurious to durability, although it does not appreciably affect the tensile strength. In fact, the damage caused by many industrial processes is not fully recognized because it does not affect the results of tensile tests.

In studying the results of the abrasion tester, it must be borne in mind that the difference between the low and high extremes of a series of tests is often very great, and therefore the average or arithmetic mean of the result fails to disclose the important weakness exhibited by some of the samples. Even the method of summarizing the results of a series of tests by the squared means seldom gives an accurate picture of conditions.

Let us take for example nine samples of a fabric *A* and nine samples of a fabric *B*, and represent the length of life of each sample by numerals as follows:

A: 1 2 3 4 5 6 7 8 9

B: 4 4 4 5 5 5 6 6 6

It is obvious that fabric *B* is much better than fabric *A*, as it contains less weak points. The fact that some of the samples of fabric *A* show a higher durability than any of the samples of *B* cannot be taken into consideration, because of the simple fact that a chain is no stonger than its weakest link. In both cases the average is 5, and therefore on the basis of averages the samples should be equally good. The method of least squares fails to show anything, because it considers the stronger samples as counteracting the importance of the weaker. The best comparison which can be obtained quickly is that of the means of the durations below the average; and on this basis the durability of fabric *A* is to that of fabric *B* as 2.5 is to 4, or, to express it in terms of more convenience for percentage calculation, as 100 is to 160. Naturally, the more tests conducted, the more accurately the mean indicates the true value of the fabric.

Inferior Fabrics

We have already pointed out that woolen fabrics have lost much of their durability since the beginning of this century. The reasons for this deterioration are the greater use of old, short, and rough wools; the weighting or falsification of weight and volume by metallic dyes; stretching or insufficient shrinking; too much degreasing (perhaps as a result of the next item); carbonizing with acids or alkalis which are too strong; and the use of rayon in stripes. Contrary to what is shown by the tensile tester, hard wools are less durable than worsteds and these are less durable than woolens. Fulling improves smoothness, and hence durability.

Silk worms in all parts of the world produce practically the same quality of silk, and therefore any deterioration found in the qualities of woven silks may properly be laid at the door of the manufacturer. Even unweighted silks are not always durable, because neither the boil-off nor the bleaching has been carried out in the most desirable fashion. It has not been definitely determined that mineral dyes produce less durability than vegetable dyes, but the suspicion persists.

In the case of wool the dye crystals ruffle up the scales, which are important to the durability of the fibers. With silk the trouble is caused in a different way. Here the thread must increase not only in weight but also in volume, if the mystification of the consumer is to be complete. As the dye crystals are about five times heavier than silk, the volume can be proportionally increased only if they are disposed very much crosswise; and in this position their many edges and points, projecting in all directions, must injure and finally destroy the tender silk filament. Piece-dyed silks are more damaged by weighting than are yarn-dyed. The ratio of silk durability to wool is as 1 is to 6.

The durability of rayon is to that of silk as 1 is to 5. Qualities of rayon vary over a wide range. The principal defect in rayon is its lack of elasticity, which is often hidden in knitted fabrics by the yielding character of the constructon; but this advantage is not shown by the abrasion tester because the sample is fixed during the testing and can yield very little.

In linen we found the standard only in the raw flax, but it is the steeping process which most influences durability. This standard bears the relation to wool of 19 to 10.

For cotton our standard is based upon raw Maco and is 2.3 times that of linen. The medium is about 1/3 and the minimum about 1/10 of the standard. Mercerizing for luster does not damage cotton, but this is not true of bleaching, starching, and some artificial lustering.

To conclude our comparison of the various textile fibers, using wool as our basis, we find that rayon is 1/30, silk is 1/6, wool is 1, linen is 1.9, and cotton is 4.3. The absolute durability of the best fabrics, plain weave and weighing 100 grams per square meter, worn 16 hours daily by middle class men, is 11 days for rayon, 50 days for silk, 300 days for wool, 560 days for linen, and 1,300 days for cotton. These figures, based exclusively on our abrasion tester, correspond exactly to all available experiences.

New Advisory Board Aims to Be Coordinating Force *for Wool Industry*

THE new Wool Industry Advisory Board, which assumed a definite identity at its organization meeting in New York last week, is determined to function mainly as a coordinating force for the industry, and to keep away from issues affecting only individual divisions. This clarification of thought was perhaps the most significant aspect of the New York meeting. The session was crisp and concise, and the delegates moved fast toward crystallizing the new movement. Col. Chas. F. H. Johnson, of Botany Worsted Mills, who was elected permanent chairman, as reported in brief mention of the event in TEXTILE WORLD for May 7, plans shortly to appoint the sub-committee which will determine the scope and functions of the board. Creation of this committee was authorized at the meeting.

Discussion at the session revealed the main danger facing the new board, namely, the difficulty of steering clear of innumerable lesser issues which happen to be vital questions of particular divisions of the industry. But it also was made encouragingly clear that the new board recognizes this danger and is resolved to avoid it; the board will focus its activities exclusively on the general outstanding problems of the industry as a whole. The consensus at the meeting was that matters relating to particular groups should not be taken up unless they have definite relation to the broader questions.

The need for a clear understanding on the point of the board's aims was emphasized in an address by Col. Johnson who pointed out that the organization could do its best work by serving as a board of coordination for the industry as a whole.

Numerous points in his talk stand out as significant. The main thoughts are: The board will do its best work if it does not attempt too many things at once. It will serve best if it does not initiate programs, but rather confines its effort to solving problems laid before it, which, however, should not preclude the board from initiating and recommending any proposal which its joint judgment may decide is worth such recommendation to the industry as a whole. Current activities, such as National Wool Week, should continue independently, but with the understanding that the board members carry back to their various groups a recommendation that these memberships support the proposed Wool Week program.

Further explaining the aims of the new organization, Col. Johnson added:

"It will be a board to whom each trade group can refer questions which affect not only itself but other groupings within the industry, and through the board arrive at a common solution, after competent study, which would result in sound recommendations on which the industry as a whole could then base a real trade policy.

"There has been for a long time a lack of cohesion and a lack of confidence, which is reflected in ruinous price policies, suicidal merchandising, which might almost be described as childish. Terms and other questions of a similar character can also be discussed and policies recommended which should be beneficial to the industry in the matter of guidance.

"The whole question of trade practices may be approached from two angles: One, that of arriving at such policies as are properly permissible under the present so-called anti-trust laws; and two, that of uniting upon a definite program, in conjunction with other textile groupings.

"My understanding of the functions of this committee is that it is really a board of coordination, through which the industry hopes to secure the joint opinion of its various trade groups.

"It is highly inportant and essential that this organization should not take over any of the functions of any particular trade grouping, and any question referred to it, which affects only one trade group should receive no consideration except on the unanimous consent of all of the members of the board.

"Should this board prove able properly to coordinate the activities, policies and interests of its various trade groups, it will have proven that the industry as a whole can be self-governing, and may help it to lead itself back to the high position it once held in the entire commercial picture."

The wide interest aroused in the textile industry by the new trade-wide movement among wool groups was evident in the messages read by Walter Humphreys, of the National Association of Wool Manufacturers, who was appointed secretary of the new board. Mr. Humphreys read letters of approval from various trade leaders, including Gilbert H. Montague, who was counsel of the late Wool Institute, and Dr. W. F. Edwards, of the United States Testing Co. who placed his services at the call of the board; and numerous others.

The organizations and their representatives comprising the new Wool Industry Advisory Board as completed to date follow: National Wool Growers Association, Frank J. Hagenbarth, J. Byron Wilson; Boston Wool Trade Association, Robert L. Turnbull, Harry J. Blake; Philadelphia Wool and Textile Association, Herbert K. Webb, T. B. Hayward, Everett L. Kent; National Association of Wool Manufacturers, Charles F. H. Johnson, Lionel J. Noah; Carpet Manufacturers, F. K. Deknatel; National Knitted Outerwear Association, Harold R. Lhowe, Daniel Rheinauer; Wool Blanket Manufacturers Association, Thurmond Chatham, Thomas Dorman; Clothing Manufacturers' Research Board, William Goldman, Henry M. Stern; Industrial Council of Cloak, Suit and Skirt Manufacturers, Inc., Leo A. DelMonte, J. M. Wallerstein; International Association of Garment Manufacturers, Samuel H. Gardner; Merchants Ladies Garment Association, Inc., Morris Nagel, Maxwell Copelof; and New York Clothing Manufacturers' Exchange, Inc., Isidore Grossman, Julius H. Levy.

Neps in Cotton Carding

and Other Matters Discussed at Greensboro

METHODS of eliminating neps in the card room, problems relating to spinning, and the subject of accident prevention in the plant, were among the questions discussed at the first regular meeting of the Northern North Carolina and Virginia Division of the Southern Textile Association, held at the King Cotton Hotel, Greensboro, N. C., May 6.

Culver Batson, division manager, Consolidated Textile Corp., Lynchburg, Va., was elected chairman of the division. He acted as temporary chairman and conducted the discussion at the first meeting. Other permanent officers elected Friday were: S. T. Anderson, assistant superintendent, Draper-American mill of the Carolina Cotton & Woolen Mills Co., Draper, N. C., vice-chairman; and J. O. Thomas, of the Carolina Cotton & Woolen Mills Co., Spray, N. C., secretary and treasurer.

Several causes for neps were discussed in connection with the first question. Chief among these causes were: card becoming "loaded" when not stripped with sufficient regularity, faced card clothing, carding or Kirschner beaters on pickers not set close enough, brushes on combers not properly adjusted, setting grid bars too close on pickers, and running card clothing that is too old.

Methods for elimination of neps, suggested by L. V. Andrews, superintendent, Martinsville (Va.) Cotton Mills Co., were, as follows: (1) Inspect card clothing more frequently (he recommended that cards be stripped out every Saturday and carefully inspected by the overseer and card grinder); (2) remove doors on back of cards and clean out fly with a brush; and (3) examine stripping by old-time methods to be certain that the rollers are stripping satisfactorily on the ends.

M. R. Vick, foreman of carding at Rosemary Mfg. Co., Roanoke Rapids, N. C., stated that he had seen two cards which were over-ground. He said that if neps were being made by a card all the way across the cylinder, the trouble may be due to over-grinding; and, in that case, close examination may reveal a little hook in the wire. The only solution for this trouble, he said, is to burnish the wire and grind lightly for two or three hours. Cards are rarely faced all the way across.

In reply to a question, J. R. Wilson, superintendent, Columbia Mfg. Co., Ramseur, N. C., stated that bleached raw stock, if properly treated, will have less neps in the picking, carding, and subsequent processes than ordinary unbleached or undyed cotton. Another member was of the opinion that slowing down cylinder speeds had little effect on the amount of neps noticed in the carding process. It was pointed out that at times the cotton is trashier, and cards must then be stripped more often.

There was comparatively little discussion of the question as to which type of card clothing (metallic, straight wire, or regular) causes the greatest number of neps. S. T. Anderson, of the Carolina Cotton & Woolen Mills Co., Draper, N. C., said that one card equipped with metallic clothing is giving good results; and, while it possibly forms a few more neps, its savings in other directions are considerable. He reported that six cards equipped with straight-wire clothing do show a good many more neps than regular clothing. Cards are stripped by the vacuum system; and if those equipped with straight wire are stripped along with the regular cards, it is noticed that the straight wire seems to fill up slightly more than the others.

Members were asked to describe what effect, if any, the diameter of the trumpet has on card and drawing sliver and upon the quality of the yarn. Mr. Vick said that the diameter of the trumpet holes should be fitted to the sliver going through and that he thought finisher drawing trumpets should be close enough to prevent foreign matter from going through with the sliver.

Chairman Batson stated that mill tests had shown that the diameter of holes in card and drawing trumpets is important. Trumpets should be checked for uniformity; and, according to J. V. McCombs, superintendent, Randolph Mills, Inc., Franklinville, N. C., any mill running trumpets that have been in use for twelve or fifteen years should throw them away and purchase new ones. In changing a mill from coarse numbers to fine numbers, for instance, where the change from 60-grain sliver to a 38-grain sliver is made, Mr. McCombs said that trumpets should be changed on cards and drawing frames.

In response to questions from members of the association, R. E. Lindsay of the Saco-Lowell Shops, Charlotte, N. C., released for publication the following table of approximate sizes of holes in trumpets and the number of drill to use for different weights of slivers:

	Cards		*Drawing*	
Grain Sliver	Diameter of hole in inches	Drill Size	Diameter of hole in inches	Drill Size
40	.140	27	.113	33
45	.150	25	.120	31
50	.160	21	.125	30
55	.167	19	.132	29
60	.175	16	.140	28
65	.182	14	.145	27
70	.190	12	.150	25
75	.195	9	.155	23
80	.205	6	.160	20

(Note: As this table is necessarily only approximate, allowance should be made for the quality cotton and the conditions under which it is worked.)

Roving Tester

None of the members present had used the roving tester enough to form any opinions as to its value. Upon the request of Chairman Batson, William Lee, of Charlotte, N. C., sales representative of the Belger Co., described several features and advantages of the roving tester which was said entirely to eliminate old-time guesswork in the roving processes. This device, Mr. Lee said, will show when there is too much twist in the roving, and also reveal the evenness and strength of roving. One cause of uneven roving was said to be excessive tension and, in this connection, it was stated that more invisible

tension is found on the fly frames than on any other machines except drawing frames.

The next question was: What effect has break draft in spinning on the breaking strength and evenness of yarn? Mr. McCombs was of the opinion that break draft has no effect on short-draft spinning, but that on longer-draft work, the break draft must be increased. One member stated that he had changed break draft from 1.03 to 1.09 and could tell no difference in the spinning. Mr. Lindsay said that the purpose of break draft is to break the twist out of roving on spinning. In addition, a long break draft was said to prevent ends from running out at the ends of the rolls. On long-draft spinning the break draft has been increased to 1.31, Mr. Lindsay said.

Machinery manufacturers now make the setting on the back and middle rolls of the spinning frame stationary as a protection for the mills. This permanent setting, according to one member, is made as nearly adaptable as possible to general conditions. L. B. Crouch, overseer of spinning, Rosemary Mfg. Co., Roanoke Rapids, N. C., advanced the thought that the bites of the middle and back rolls are a much greater distance apart than those between the middle and front rolls; and as the stock does not undergo so much change between the middle and front rolls, an adjustable setting between middle and back is unnecessary.

The question of whether or not a mill can save money by manufacturing or machining repair parts in the mill machine shop was said to depend upon the following factors: (1) quantity of castings to be used; (2) prices charged for repair parts by the machinery builders; (3) type and capacity of shop equipment; and (4) ability of the machinists. It was pointed out that overhead charges are not usually applied to the cost of making repair parts, as the shop organization must be maintained anyway to handle emergency work.

Culver Batson, who was elected chairman of the Northern North Carolina and Virginia division of the S.T.A.

Slasher Troubles

D. F. Short, overseer of spinning, Consolidated Textile Corp., Lynchburg, Va., stated that on 30s and coarser numbers, stretch on the slashers should be held down below 1%. He said that variations and excessive stretch are sometimes caused by lopsided section beams. He has noticed very little difference in stretch in ten-beam sets as compared with four-beam sets. His slashers are not positively driven. Two methods of testing for stretch were described, as follows: (1) Compute the stretch by multiplying the circumference of the copper roll in the size box by its speed and comparing the result with a similar figure obtained by multiplying the circumference of the delivery roll by its speed. (2) Use yardage indicators on section beams, taking the reading for three-minute intervals, and then getting the same three-minute recording on the loom beam in front of the slasher.

Causes of yarn sticking to the cylinder in slashing were given as follows: (1) bad blanket; (2) absence of sufficient softening qualities in the size compound; (3) improperly cooked size; (4) running too high a percentage of moisture without adding enough lubricants or oils in the size mix; and (5) improper drainage in the machine, resulting in condensation in the cylinder, which seems to have an effect on the metal.

No method could be given for completely eliminating rainbow effects in weaving wide goods (57- to 78-in. widths). Causes advanced were: (1) weaving cloth narrower than loom is built to weave and (2) cloth roller stands becoming worn so that cloth roller will not come up close to the temple roll. T. W. Mullen, superintendent, Rosemary Mfg. Co., Roanoke Rapids, N. C., said that an attempt to remedy this trouble was made by building up ends of the sand rolls. This was not successful and the rainbow effect was finally removed in the finishing department by using what is known as "bellied roll" in calendering on 55-in. material for mattress covering.

The concensus of opinion was that master mechanics should have charge of oiling and lubricating motors and power-transmission equipment in the mill, but that the textile machinery should be oiled under the supervision of the overseer in each department. Chairman Batson stated that all oiling, overhauling and maintenance of machinery in one of his plants is under direction of the master mechanic and that the plan is working out very well.

Accident Prevention

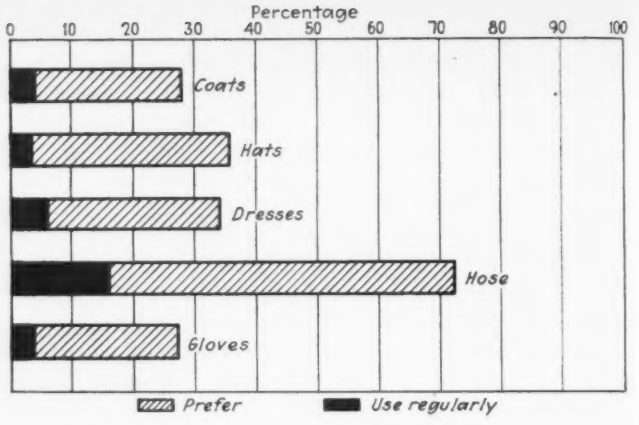
Accident prevention is getting more attention from mill managements in North Carolina because of the new state law on workmen's compensation. Several members reported that their mills are following the suggestions of the insurance companies and have plant committees to make weekly inspections and report on conditions needing corrections. Mr. Mullen described the plan in effect in his mill. A workmen's committee of three members, one of which is replaced every 90 days, makes regular weekly inspections of the plant and meets each month with the safety committee. Posters furnished by the insurance company are displayed in an effort to develop among the employees the habit of thinking about safety.

Small individual cooling units with fountains were preferred for drinking water in the plant. The central-station unit from which drinking water is pumped around in the mill was not considered so satisfactory as the individual units, since the heavy cork insulation around the pipes was found to be rather expensive. Samples of drinking water should be sent to the laboratory of the State Board of Health at regular intervals for testing. This must be done in order to determine how much chlorine per 1,000 gallons of water is necessary to purify it.

In changing from white cotton to dyed cotton, changes that are necessary, according to Mr. Vick, are to close up Kitson pickers on colored work where three-process picking is used and to make the lap as thin as possible. If these changes are made, there will be no trouble in the carding process.

Brands *as Guide in the Choice of Women's Outer Garments*

By Velma Blazier and Katherine Cranor
Textiles and Clothing Department, Iowa State College



Percentage of women preferring brands in buying outer garments

ONE of the most puzzling purchasing problems confronting modern women is the wise selection of outer garments, which problem has increased greatly during the last few years due to the great variety of garments which flood the market.

Many women have little training and experience in the selection of garments, and must depend upon brand or the recommendation of friends and salesmen. A few women are governed by their own judgment when selecting garments. This requires a knowledge of textiles, quality, color, style, fit and construction. Brand may not always be a safe guide for selection. Many brands are well known and reliable, others are new and meaningless.

A careful study of various brands of similar articles will indicate to the consumer the need of greater ability to judge quality and its relation to price. It will also emphasize the importance of being familiar with the brands that are upon the market and with the protection given by the guarantees of the manufacturer.

To obtain information concerning the brands which are obtainable, a preliminary survey was made of stores in a given area, carrying the articles of clothing to be studied. Additional information was secured by means of personal interviews with students, professional women and housewives. This was made possible through the cooperation of college instructors and women's clubs, social, religious and business. Further information was secured from rural homemakers in various localities through the cooperation of extension leaders. The purpose of this survey was to determine to what extent brands are used by women in their purchasing and the satisfaction derived from branded garments in comparison with garments of no special make. An effort was made to determine the qualities which women seek in coats, hats, dresses, hosiery and gloves, and the extent to which the purchasers take advantage of the maker's guarantees.

An effort was also made to determine the extent to which the consumer was influenced by advertising. To do this a survey of the advertising by brand in recent popular magazines and newspapers was made. Manufacturers were also asked to estimate if possible, to what extent their sales were due to national advertising. Conclusions are based upon the responses of 350 consumers, 117 merchants, 25 manufacturers and 50 issues each of seven popular, high-priced magazines and six well-known newspapers.

The general conclusions resulting from this study of branded garments are as follows:

Out of 350 women who cooperated by giving information, practically every one seemed to have some doubt as to the factors which influence her purchase of garments. Reasons mentioned by women as influences in choosing branded garments occur with frequencies (percentage in total replies) as follows: Durability, 60%; style, 54; past experience, 48; comfort, 42; adapted to needs, 36; color, 22; stands for quality, 17; guaranteed, 12; makes shopping easier, 12; recommendations of friends, 11; advertised value, 7; recommendations of merchants, 4; other reasons, 7.

Hosiery is more frequently purchased by brand than other outer garments. Less than one-third of the women were influenced by brand in the selection of coats, hats, dresses, and gloves. This is probably due to the fact that style and color play such an important part in the selection of ready-to-wear. The majority of the women indicated that they bought branded garments because they thought that brand stood for quality. The tendency is to select for color, style, and workmanship, rather than by brand. Merchants say that few women ask for a definite brand when purchasing garments.

Twelve per cent of the women who buy by brand said that they were largely influenced in their selection by the manufacturers' guarantee. Few manufacturers of branded garments, however, when asked to what extent their trade-mark was protection to the consumer, were willing to state a definite guarantee, and some evaded the question entirely. In general, however, it appears that guarantee means satisfaction to the consumer.

Few women reported that they were influenced by advertising when purchasing ready-to-wear. The brands which are most frequently advertised in popular periodicals are not those which were preferred by the consumer. Both manufacturers and merchants have expressed a belief that the desire for style and appearance has affected the direct results of advertising. Reported instances of misrepresentation occurred 62% in unbranded garments and 38% in branded garments.

Women more frequently secure the brands they desire from department stores than from other sources. The fact that 88% of the 350 women said they were on the alert for new brands indicates an interest in improving their ability to purchase wisely.

This article is based upon data obtained from a thesis offered by the junior author in part fulfillment for the degree of Master of Science in Textiles and Clothing.

Textile High School *in New York Opens New Building to the Public*

ON Thursday, Apr. 14, the new Textile High School, at 351 West 18th St., New York, was thrown open for public inspection. Although the school has been utilized for teaching since the beginning of the school year last fall, this occasion represented in a sense its formal opening. Over 4,000 visitors called during the day.

The dramatic growth of textile education in the public school system of New York can be visualized when the present enrollment of some 5,400 students, exclusive of 2,000 evening school sudents, is compared with the initial enrollment of 84 students when the school was started in 1919. Of the present student body, approximately 3,600 are accommodated in the new building, and the remainder in two other public schools.

The broad scope of the educational work performed by the Textile High School is demonstrated by the following summary of departments visited during the public inspection on Apr. 14:

Textile printing room, showing machine roller and color mixing, where textile designs made by students were being printed in four colors.

Hand weaving room—showing students reproducing their designs in woven fabrics.

Power knitting room—showing all the different types of knitting machines—machines for knitting ties, hosiery, scarves, underwear, and knitted fabrics for outerwear.

Photo-engraving room, showing methods of taking photographs and reproducing them.

Finishing room, showing dyers, bleachers, sterilizers, etc.

Carding and spinning rooms showing full-size machinery. Both ring spinning and mule spinning were demonstrated. The school also has a complete cotton gin. The various processes in the manufacture of silk and rayon were also demonstrated.

Weave room showing all types of looms actually weaving chambray, velvets, plushes, dotted swiss, damask, ribbons, worsted fabrics, etc.

Card cutting machines showing actual cards being cut for the jacquard looms.

Millinery room showing facilities for designing and making hats.

Millwright department showing use of machine shop tools —wood work, sheet metal work, and electrical testing as well as wiring.

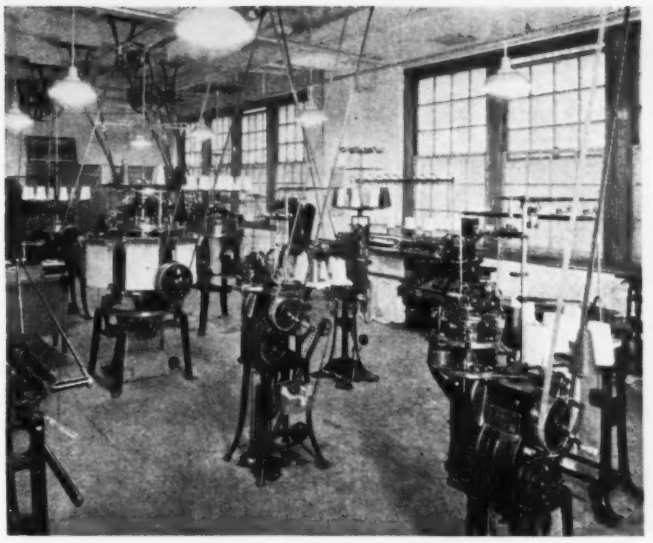
Dressmaking and draping rooms showing students draping costumes in muslin and finishing garments in various fabrics.

Window dressing department where facilities are provided for the teaching of the proper display of textiles and wearing apparel. A regular "Fifth Avenue" window was shown.

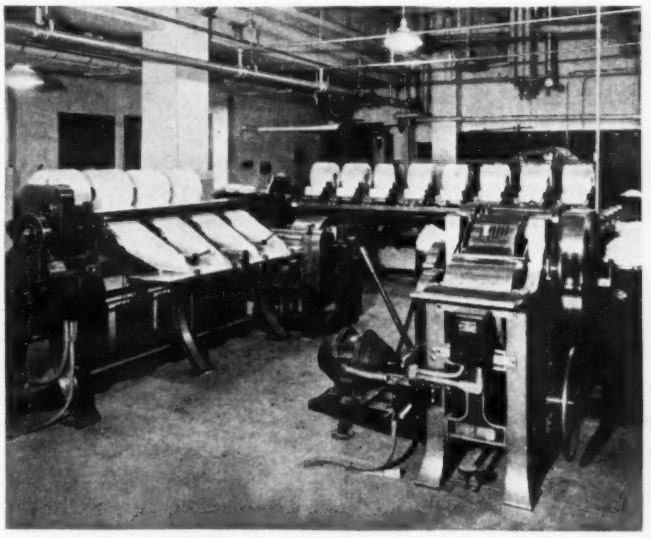
Testing laboratory showing biological and chemical testing as well as experimental dye work.

Block printing room showing students making the blocks for prints and actually reproducing designs on fabrics.

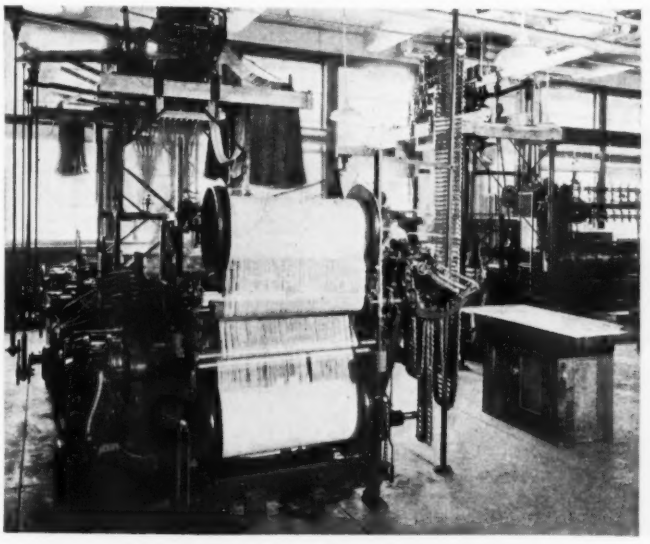
In addition, there were class rooms, gymnasiums, swimming pool, music rooms, interior decorating rooms, etc., showing students at work.



Knitting department showing circular machines in foreground



Combing section, showing ribbon lapper with comb in background



Weaving department showing a power-driven jacquard loom

Bright Colors, Rough Weaves ... *in Woolens*

By George R. Stevens

FABRICS exhibiting unusual weave and color effects and employing various fancy yarns are finding considerable favor in the men's top-coating field; and in most cases a few changes here and there will make them equally suitable for women's garments. Some of the more interesting of these materials are herewith analyzed, and suggestions are given as to variations in their construction and finish.

A typical Scotch fancy cheviot coating suitable for either men's or women's wear, together with its weave diagram, is shown in Fig. 1. It is made entirely of double-and-twist yarns, which enhance the general appearance of the garment and stamp it at once as one of high-grade quality. The stock is a good high grade of quarter blood, blended with possibly 40% or more of a good, garnetted, white, worsted-yarn waste of the same grade of wool; or a good staple noil of the same quality could be used. However, if noil is used in the blend, it is suggested that it be carbonized with the aluminum process to assure a good white stock, which is essential in producing this class of fabric.

The writer, however, desires to caution anyone against trying to dye lots of wool in which even a small percentage of carbonized stock is present. The carbonizing process increases the affinity of the wool fiber for dyestuffs, thus making it impossible to secure level shades in batches of both carbonized and uncarbonized stock.

The warp consists of 1,620 ends, and both warp and filling yarns are spun to $2\frac{3}{4}$-run. A medium-hard twist to the left is inserted in the singles, and this is retwisted to the right about 10 to 12 turns per inch in the twisting operation. The best method is to spool the yarn before twisting, and the party in charge should see that there is an even tension on all the threads during this process to insure an evenly twisted thread. Careful attention should also be given to the spooling in the process of dressing, as well as seeing that the sectional spacing on the reel is correct to prevent any chances of section marks in the woven cloth.

In the fabric at hand, there is very little evidence of fulling. Very likely—in common with other similar materials—the pieces were well scoured before any fulling; then the time in the fulling should be very short with just enough "trap" to prevent the cloth from pulling out in length. A light-body soap is the best to use in both the fulling and scouring. The usual folding and sewing together of the selvages is also advantageous. The warp, as laid in the reed, is approximately 67 or 68 in. over all; and there are sixteen picks per inch in the finished fabric.

The filling yarns are the same as the warp in regard to size, twist, and quality. The filling is picked one navy blue, one red-brown shade; and, as the filling yarns are without any doubt dark or medium colors throughout the line, it is not necessary to use white wool stock for these dark shades. Therefore the use of slightly stained wools or noils for the filling is perfectly permissible and would no doubt prove economical. However, such stock should be carefully examined for burs and shives before being dyed; and if there is any indication of such, it should be carbonized and neutralized before dyeing.

Another interesting fabric with its design is illustrated in Fig. 2. The face weave is a six-harness two-up-one-down-one-up-two-down twill—with a plain cloth weave on the back. This makes a firmer cloth, owing to the close interlacing of the plain weave.

The yarns are spun to 4-run for use in both warp and filling; and in order to make good level thread, it is necessary to use a good grade of $\frac{3}{8}$-blood wool. It is possible, however, to blend this wool with a goodly percentage of the same grade of garnetted fine yarn waste or a good staple $\frac{3}{8}$-blood noil. The latter, however, should be carbonized to insure freedom from burs or shives; and even if it is well neutralized it should not be dyed in the same batch with uncarbonized wool. The warp mixture is made up of 85% white and 15% black wool, and to be absolutely free from specks in the yarn, the black stock should be of a good $\frac{3}{8}$-blood-quality pulled wool. This will possibly save a good deal of expense in the finishing department.

A small herringbone pattern somewhat different from the usual weave effect is shown in Fig. 3. The broken

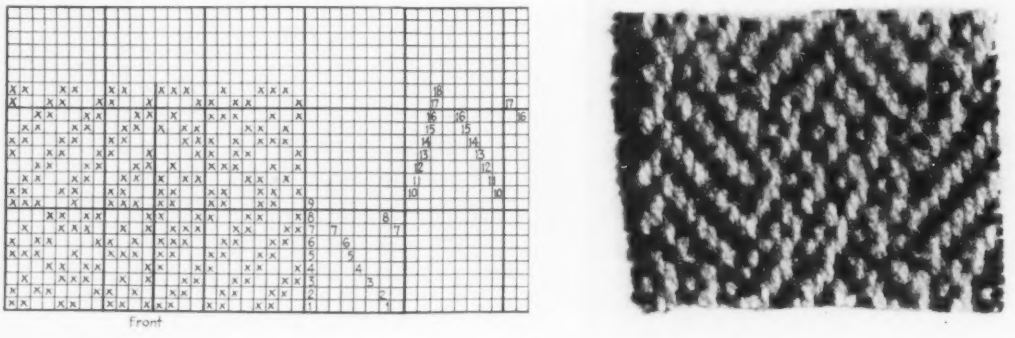
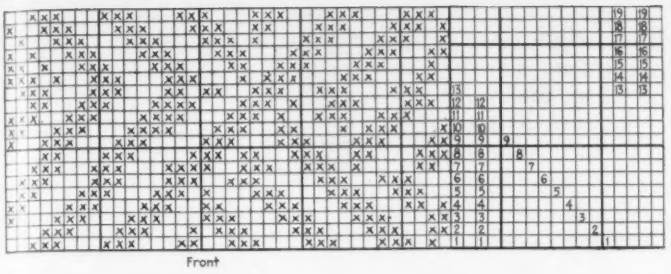


Fig. 1



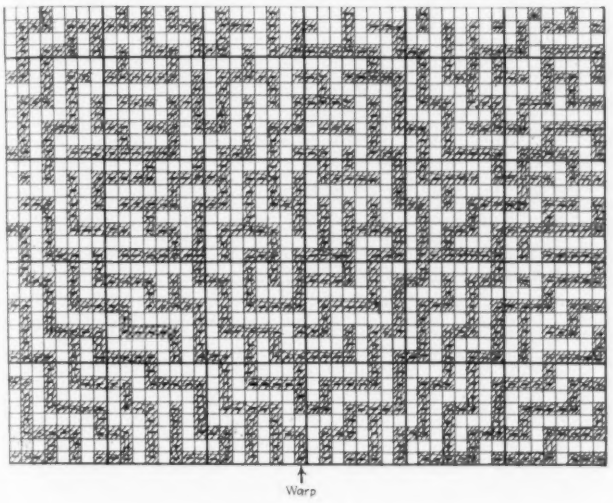


Fig. 4

weave combined with the herringbone drawing-in draft gives us a woven design very suitable for both men's wear and women's coating; but if it is made up for use in women's coating fabrics, it is suggested that it be reproduced in much heavier yarns and that the drawing-in draft be extended at least 32 threads on the forward draft and the same number on the backward draft. The design, as shown, is very suitable for men's suitings in the darker tones, such as navy blue and red-brown, black and black-and-white mix, etc. In a woman's coating, heavy yarns such as 1-run or 1½-run spun from cheviot wool in a variety of the popular colorings would prove most suitable.

The writer notes that recent advices from England indicate a definite vogue for fancy rather than plain weaves. Therefore, the use of heavy yarns resulting in fewer ends and picks per inch together with the insertion of a few illuminated mixes with fancy colors dyed in coarse, kempy wools or low-grade mohair noils, will result in something just a bit out of the ordinary.

This fabric is made with 4-run warp and filling, having about 40 threads per inch in both warp and filling. Therefore, the heavy yarn show up very effectively, especially in fancy illuminated mixtures. Such a fabric should be practically finished in the loom; i.e., very little fulling should be employed.

The writer had an idea some time ago that there was a coming change to rough, unusual fabrics in women's wear; and he started then to lay out a new fabric in a novelty design, description of which follows. The weave, shown in Fig. 4, is not new, but it is transformed somewhat to bring out a weave with different number of harnesses and drawing-in draft. The design can be woven in a 1x1 pattern and also a 2x2 pattern. The use of light-colored warp with dark-colored or fancy mixed filling is also feasible .

The illustration is drawn out to show the woven effect in a 1x1 pattern. The warp consists of one thread of heavy yarn made from an illuminated fancy mixture and containing a goodly percentage of kempy stock or low-grade mohair noils dyed in bright colors. The second thread of warp and filling is to be made from an ordinary medium wool without any kemp or mohair noil and spun to a finer count than the heavy thread. These same yarns are used also in the filling.

In the illustration representing the woven effect, the shaded lines show the rough kempy yarn in both warp and filling. This weave should show up very well in solid-white and medium-shade warps and also in two-tone fillings, having a 1x1 effect similar to Fig. 1.

This weave (Fig. 4) will also give an attractive effect when drafted 2x2 in warp and filling, making a bold and irregular zigzag effect. Interesting novelty effects can be secured by weaving with rough, kempy, fancy mixes and two picks of the darker and medium shades of plain yarns as outlined above.

Suggestions for illuminated fancy yarn:

Example 1—10% white quarter blood
20% white mohair noils
20% bright blue quarter blood
15% scarlet quarter blood
10% pine tree green quarter blood
25% black quarter blood

Example 2—20% white mohair noils
25% tobacco brown
20% chromium yellow (dark)
35% medium light navy blue

Example 3—10% light-blue mohair noils
20% gold one-quarter blood
50% navy blue quarter blood
20% red-brown quarter blood

It is suggested that the warp layout for this cloth consist of the following: 960 ends of the heavy illuminated yarn spun to 1⅝-run, and 960 ends of the plain colored yarn spun to 2-run—dressed 1x1 or 2x2 as desired.

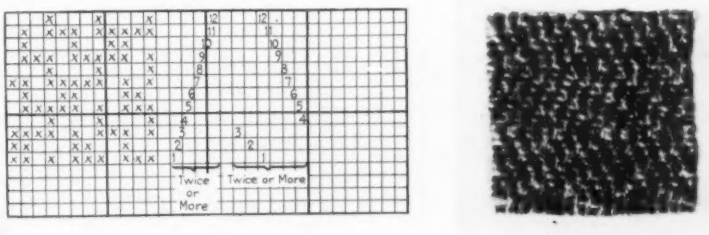


Fig. 2

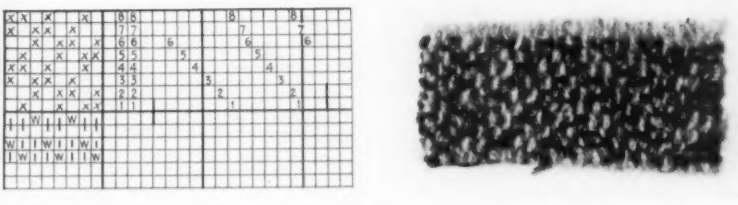


Fig. 3

Figured Effects in Narrow Fabrics

Secured by Use of Multiple-Filling System

Fig. 1

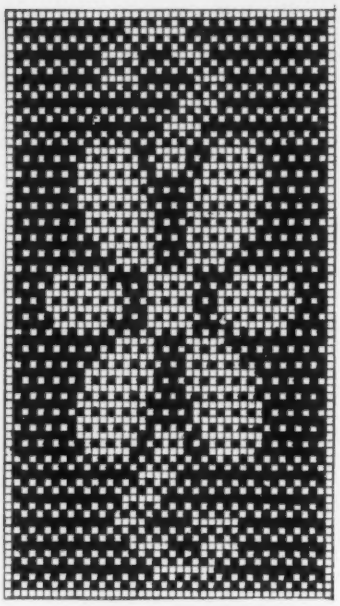


Fig. 2

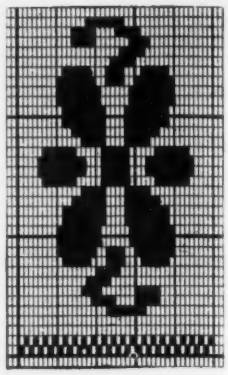


Fig. 3

By Edwin J. Gibbons

AS IN wide goods, one or more extra fillings may be incorporated in a narrow fabric to produce figures, or to add weight, thickness, or firmness to the material. If the extra filling is introduced for figuring purposes, it is termed a *figure* filling, while the regular filling is termed the *ground* filling. If the extra filling is intended for weight or thickness (in which case it is usually caused to interlace on the back of the fabric), it is designated as the *back* filling, as distinguished from the *face* filling. In the case of interior picks, the respective fillings are termed *face, middle,* and *back*. The proportion of face or ground picks to extra filling picks may vary, as in the case of extra warp.

If the fillings employed are exactly the same, the material may be woven on a regular loom and with but a single shuttle per tape. If the fillings are different, one shuttle will be required for each filling, thus necessitating a drop-lay or bank-shuttle loom. The number of extra fillings that may be incorporated in a single tape is limited only by the number of available shuttles per space in the loom.

Extra Filling for Figure

Narrow fabrics employing an extra filling for figure constitute an important and valuable branch of the narrow-fabric industry. Principal among such products are corset and pajama trimmings, lingerie tapes, ornamental ribbons, and marking labels.

As compared with an extra warp for figure, an extra filling for figure is more costly because of the extra labor involved in weaving, but the effect produced is far superior. The design is more sharply defined and more compact. Then, too, the fabric is less bulky, as the extra filling need only be present where actually required. Where the figure is continuous, the various shuttles may operate regularly in uninterrupted order. When the figures are intermittent, the extra shuttles need operate only for the extent of each figure.

The ground filling interlaces with the warp ends to form the body of the fabric; and the extra filling, or fillings, float over the warp ends to form the design or figure. In the portions of the picks where it is not required for figure, the extra filling simply floats across the back of the fabric. Shearing is not resorted to in narrow fabrics. Therefore, if necessary to prevent excessively long extra filling floats on the back of the fabric, the figure filling may be stitched up in the best possible maner. The five-harness, eight-harness, or ten-harness satins are often employed for stitching.

The fillings may be arranged in almost any order, such as one ground, one figure; two ground, one figure; one ground, two figures, etc. However, the number of extra filling picks seldom exceeds the number of ground picks excepting where more than one extra filling is employed. The arrangement then is one ground pick to one pick each of the different fillings as required. Narrow fabrics are often made with as many as five different fillings—one for the ground and four for figuring. These webbings are made on a five-bank shuttle loom.

The different steps in construction are as follows: (1) Determine the location of the figure, and shade the extra filling picks light yellow; (2) place the design on the figure picks in pencil; (3) place the ground weave on the ground picks in red paint; (4) raise the warp ends over the extra filling picks (except where the design appears in pencil) with green or black paint. The penciling may then be removed with an art-gum eraser.

Illustrated in Fig. 1 is a narrow fabric in which is incorporated an extra filling for figure. Fig. 2 shows

This article is the fourteenth of a series on the design and construction of narrow fabrics by Edwin J. Gibbons, instructor in textile design at Samuel Slater School, Pawtucket, R. I. Mr. Gibbons reserves all rights. Previous articles, some in more than one installment, appeared Nov. 16 and Dec. 28, 1929; Jan. 25, March 1, April 5 and 12, June 21, Aug. 2 and 30, and Nov. 5, 1930; Feb. 14, May 9 and 16, Aug. 22 and Oct. 31, 1931; Jan. 23, 1932.

the design for the fabric illustrated in Fig. 1, and is laid out according to the instructions given above. Note that at the beginning and end of the figure the picks are arranged two ground, one figure; and in the main body of the design the filling arrangement is one ground, one figure.

When the ground weave is a simple interlacing (and the majority of filling-figured webbings employ a plain-weave ground), an economy of both time and labor may be effected by executing the design according to the method illustrated in Fig. 3, which is identical to the design shown in Fig. 2. In this method the point paper used should conform to the proportions of the figure and without consideration of the ground weave. One repeat of the ground interlacing is shown; and then a few picks above this, in the proper location, the figure is sketched as before.

Upon completion of the figure, the penciling may be gone over with paint, or the penciled portions of the picks may be avoided and only the unpenciled portions of the figure picks painted. If the figured portions of the picks are painted (as in Fig. 3), and the material is to be woven face up, the unpainted squares in the design are considered as raisers in drawing off the chain draft or in cutting the cards for a jacquard loom. If desired to be woven face down, only the painted squares should be considered. When the unfigured portions of the picks are painted (as in Fig. 2), the filled-in squares carry their usual significance if the fabric is to be woven face up, and are considered as sinkers if the material is to be woven face down. Instructions as to the filling arrangement should accompany the design.

The ground weave is usually designated by the use of red paint, and the figure with green paint. This choice of colors, however, is only arbitrary.

Fig. 4 shows a design in which the figuring shuttle operates continuously and in which the painted squares carry their usual significance if the material is to be woven face up. Fig. 5 illustrates a fabric woven according to the design shown in Fig. 4.

Fig. 6 illustrates a name label made by imposing on a plain-weave ground a figure made with an extra shuttle.

The Barathea Weave

The well-known barathea weave, employed so extensively in the manufacture of beltings and suspender fabrics, is constructed with two fillings and one warp. The warp is divided into small alternate groups of stuffer ends and binder ends; and on account of the difference in the take-up of the two types of interlacings, the warp should be on two beams. Usually only one shuttle is used.

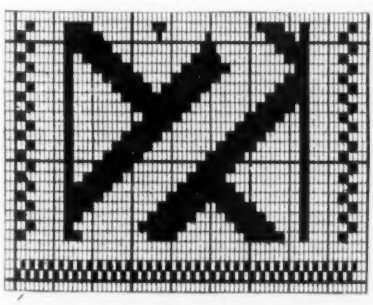


Fig. 4

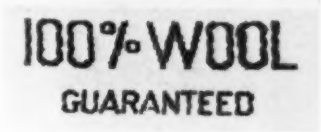


Fig. 6

Fig. 5

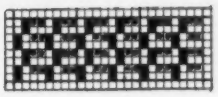


Fig. 7

Fig. 8

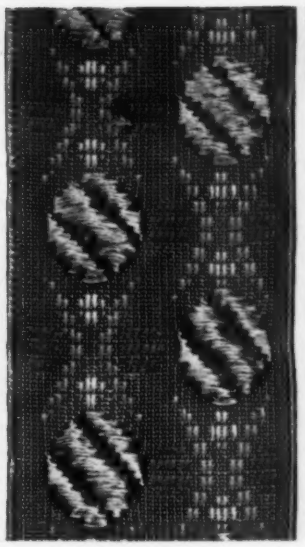


Fig. 9

Fig. 10

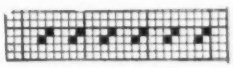


Fig. 11

The face filling passes over all the stuffer ends and is bound down only by the binder ends; and the back filling passes under all of the stuffer ends and is caught up only by the binder ends. The binder ends may be grouped in two's, three's, or four's and interlace in 2-2 warp-rib order. The stuffer ends interlace in one-up-one-down order, and the number of stuffer ends that are grouped together depends upon the count of the yarn and the desired size of the cord.

A simple barathea weave is shown in Fig. 7. The binders are arranged in pairs, and there are two threads in each group of stuffer ends. The design is two repeats high and six repeats wide.

Fabrics employing the barathea weave may be ornamented in two ways; first, by omitting to raise the binder ends over the face picks in certain portions, thus effecting a filling float the length of which is governed by the width of the stuffer cords and the number of cords the filling is permitted to float over; and second, by using various colors in the stuffer warp and floating certain of these stuffer ends over the filling to form figures on the face. Ordinarily, only the face of the goods is figured.

Fig. 8 illustrates a fancy narrow fabric in which the basic weave is the same as shown in Fig. 7. The design is wrought by omitting certain of the binder raisers.

Fig. 9 illustrates another narrow fabric in which the barathea weave is employed. Here ornamentation has been effected both by floating the filling and by floating certain of the stuffer ends.

In executing designs employing the barathea weave and in which ornamentation is effected only by floating the filling (as illustrated in Fig. 9), it is necessary to show but one repeat of the back interlacing. This will

represent the binder ends interlacing in plain weave order (which they really do, of course, considering the back picks only), and will show the stuffer ends raised on every pick.

In Fig. 10 is shown a complete filling repeat of the back weave as taken from the design shown in Fig. 7. The face weave as it will then appear in the design is depicted in Fig. 11. Note that here, also, the binder ends interlace in plain-weave order, but that the stuffer ends are lowered on every pick.

With the barathea weave and other interlacings of this type in which a single rayon is often employed for filling, the direction in which the shuttle enters the shed is very important. With filling yarn in which the spirals of twist incline upward to the left, the shuttle should pass from right to left in putting in the face picks. This is equal to taking twist out of the filling; and the fewer the turns in a filling yarn, the greater its covering capacity. With filling yarn in which the spirals of twist incline upward to the right, the shuttle should pass from left to right in inserting the face picks. The back picks in both instances should, of course, be inserted in the opposite direction.

More Than One Extra Filling

In constructing designs for narrow fabrics in which two or more extra fillings are employed, the method of treatment will depend upon the type of figure to be woven. If the design is such that the different figure fillings do not float over the same warp ends on a single pick, the interlacing of both figure fillings may be represented on one pick by the use of different color paints. Fig. 12 shows a design so treated. The solid-colored squares represent the interlacing of one extra-filling, and the partly filled squares represent the interlacing of another extra filling. The ground weave is plain, as shown below the figure.

Illustrated in Fig. 13 is an ornamental trimming woven with three shuttles according to the design shown in Fig. 12.

Fig. 14 illustrates a fancy ribbon in which a ground filling and two extra (figure) fillings are employed, and in which neither extra filling interferes with the other.

When one extra filling pick over-laps the other on successive picks without the intervention of a ground pick, each separate filling will require a separate pick in the design; and the point paper will have to conform to the changed order. Such instances are rare in narrow fabrics.

Extra Filling for Weight or Thickness

The addition of an extra filling purely for weight or to add thickness is seldom encountered in narrow fabrics. The purpose is much more easily accomplished by the use of an extra warp, but the principle is often employed for other purposes. The fundamentals are much the same as in the case of an extra warp for weight. The filling interlaces with the warp ends to form the face or body of the fabric, and the extra filling weaves with the warp ends to form the back of the material. Neither interlacing must interfere with the other.

There are three methods of stitching the back filling to the body of the fabric. (1) The sinkers of the back weave may occur between two sinkers of the face weave. In other words, the warp end may be lowered under the back filling at a point where it is lowered both on the preceding and succeeding face picks. This forms a perfect (invisible) stitch. (2) The sinker of the back weave may occur between a raiser and a sinker of the face weave, thereby effecting a partially invisible stitch. (3) The sinker of the back weave may occur between two raisers of the face weave, thus resulting in a wholly visible stitch. This form of stitching should not be employed excepting where a visible stitch is permissible.

The proper method of lowering a warp end under a back pick to form a perfect invisible stitch, is illustrated graphically in Fig. 15.

Fig. 16 on the other hand, shows the wrong method of stitching and demonstrates the excessive strain exerted upon the warp end when improperly stitched.

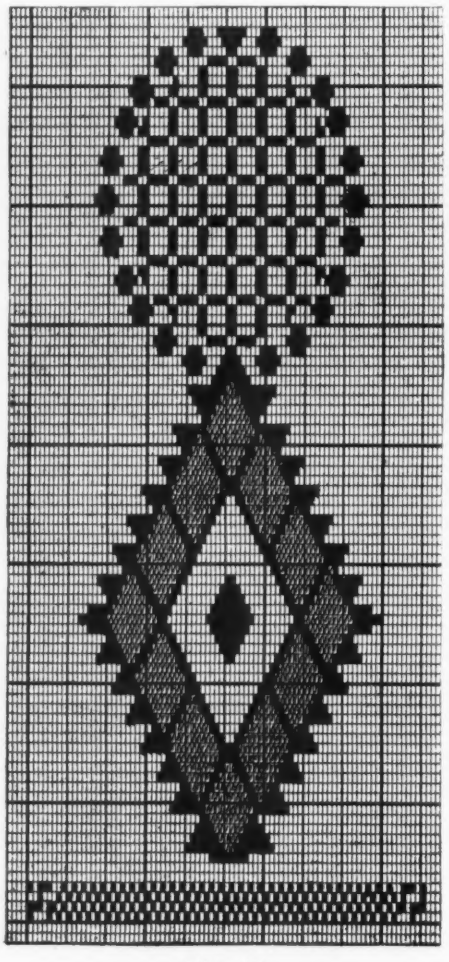


Fig. 12

Fig. 13

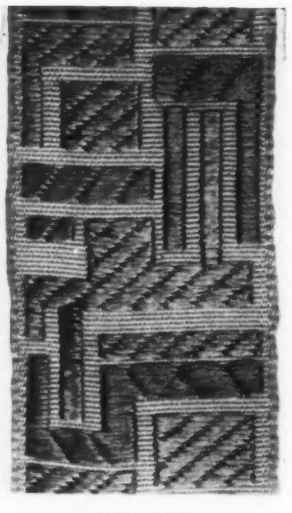


Fig. 14

Fig. 15

Fig. 16

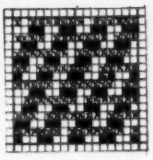


Fig. 17

Fig. 20

Fig. 21

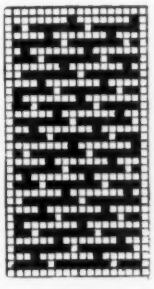


Fig. 18

Fig. 19

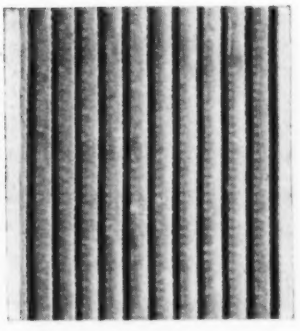


Fig. 22

The number of ends on which the design will repeat will be the least common multiple of the number of ends on which each weave repeats. The number of picks on which the design will repeat will depend upon the proportion of face picks to back picks and upon the different weaves employed. The total number of picks in the repeat, however, must be a multiple of the filling arrangement; and the number of face picks and back picks in the design must each be a multiple of the number of picks in one repeat of the respective weaves.

The different steps in construction are as follows: First, shade the extra filling picks yellow. Second, place the face weave on the face picks in red paint. Third, place the back weave on the back picks in black paint.

Fig. 17 shows two repeats each way for a design incorporating a back filling for weight or thickness. The face weave is the regular two-up-two-down twill, and the back filling is stitched to the body of the fabric in 8-harness satin order. The arrangement is one face pick, one back pick.

When the arrangement is two face picks to one back pick, it is advisable to start the design with one face pick. With an arrangement of three face picks to one back pick, the design should be started with two face picks.

Filling Reversible Weaves

In narrow fabrics filling reversible weaves are employed chiefly in the manufacture of ribbons. One or two colors may be used in the fillings, and the arrangement may be one-and-one, or two-and-two. If both fillings are the same color, the fabric may be made with a single shuttle and on a regular loom. If two colors are used in the fillings, a drop-lay loom will be necessary; and each side of the material may be a different color. By alternating the fillings at different intervals, both face and back may be ornamented.

The satin weaves are most commonly used; and as both sides of the material must present the same appearance, the design will show a filling effect weave for the face and the warp effect of the same weave for the back. The raisers of the face weave must occur between the raisers of the back weave, and the sinkers of the back-weave must occur between the sinkers of the face weave. This will insure invisible stitching on both the face and the back of the fabric. The different steps in construction are the same as in extra filling for weight.

Fig. 18 shows two repeats each way of a filling reversible weave in which the interlacing on both the face and the back of the fabric is the eight-harness, filling-effect satin. The filling arrangement is one face pick, one back pick. Fig. 19 shows a filling reversible ribbon made according to the design shown in Fig. 18.

Face, Middle and Back Picks

The use of middle picks, where only one warp is employed, is usually for the purpose of lending firmness to the fabric. The middle filling is generally entirely concealed, either by the warp ends or by the face and back picks, and could therefore be of an inferior grade of yarn. The practice in narrow fabrics, however, is to weave such fabrics with but a single shuttle and of course with only one filling yarn.

The steps in construction are as follows: (1) Shade the back picks dark yellow and the middle picks light yellow. (2) Place the face weave on the face picks in red paint. (3) Place the back weave on the back picks in black paint. (4) Place the middle weave on the middle picks in blue paint.

Fig. 20 shows a design in which face, middle, and back picks are incorporated. The face filling is bound down only by the binder ends, and the back filling is stitched up only by the binders. The middle picks interlace with the stuffer ends in plain-weave order. Face, middle, and back picks are designated as *F*, *M*, and *B*, respectively.

A cross section of the weave shown in Fig. 20 is illustrated by Fig. 21, and Fig. 22 shows a narrow fabric interlaced according to the same design.

If different-color fillings were used for face and back, this fabric might have been striped by causing the different filling to float over alternate cords.

Overseers' Round-Table

THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened five weeks ago is closed this week and summary of contributed ideas given on opposite page.

◆

Youth vs. Age

Editor, Overseers' Round-Table:

THIS IS a question with many answers. An overseer with from 15 to 20 years' experience is naturally going to say that it is not advisable to replace an old, experienced overseer with a young man who appears to have more push and ambition.

Now, to my way of thinking, an overseer should not hold down the same job longer than seven or eight years. After being on the same job that long an overseer gets in a rut. But by making a change he keeps abreast of the times and keeps his mind young, and still has those valuable years of experience to back him up.

I would not advocate replacing an old-timer with a younger man simply because the younger man may appear to have more push and ambition (all us overseers were younger men than we are now when we received our break), but there is altogether too much of this so-called young blood in the textile game today. Without the steading hand of someone with years of experience these young fellows today cannot keep their feet on the ground. Too much golf is the reason. OLD BOSS WEAVER.

Editor, Overseers' Round-Table:

DURING THE past decade we have witnessed many important changes in the textile field. In some instances it has been the change of older men for the more youthful college graduate, so that it is but natural that discussion should come up on this subject. The question ought to be—What can be done to save the old timer from such a sad fate?

Some employers believe that youth fresh from the textile schools or colleges, full of vim, pep, hustle and vigor, will give them quick results. This in some cases may have proven true enough, but I am wondering if management is not pretty lame not to see that their faithful men are given the chance to keep abreast of the times by getting an opportunity to master new developments in methods and machinery. Why not a course of training on any of the contemplated changes? It is the custom in other industries to send the men who are to be responsible for the operation of new equipment or methods to the place from which it is to be obtained and to give them a chance to learn at first hand correct supervision from the originators. An old timer given this chance and then failing, will not feel so badly if he can't make the grade. At least he has been used fairly.

I say use caution before dropping the old timers. Their many years of training ought to be an added asset to them, if they are given a chance to modernize mentally on the newer scheme of things. Let's give them a break! A.B.C.

A Fire Brigade is Sugg

"YOU men may be interested to know," Superintendent Chase said, "that just before I started for this meeting I got a phone call that the Brown mill was on fire and that there wasn't much chance of saving it."

"What happened?" inquired Bill.

"Why, from what they told me," Chase explained, "the fire started in some out-of-the-way corner and got a little headway before it was discovered. Of course an alarm was sent in, but the fire house is quite a distance away. In the meantime, a lot of men ran around with extinguishers and buckets, but they got in each other's way so much that the fire was out of control by the time the fire department arrived."

"Tough on the folks working there," Bill commented, "they'll be out of a job."

"Yes, and that makes it all the worse when you think that the fire might have been put out in time if the proper precautions had been taken," Pete broke in. "What every mill should do is to train a certain number of its workers in fighting fires. Then, when a fire breaks out, these men know what to do and go ahead and do it in an efficient way. Mr. Chase has mentioned the fact that in the Brown mill everyone ran around and got in each other's way so much that no real fire-fighting was possible. You have to go about such things in an orderly fashion and the only way to insure this is to have a trained force of workers. What I would suggest is having some man in the plant at the head of the squad. Then there would be certain overseers as lieutenants, with definite duties to perform if a fire broke out, and a number of workers trained to do certain jobs when an alarm sounded."

"So many people are thrown out of work by fires," Bill spoke up, "that I will break a long-standing custom and agree with Pete. I think that a certain group of overseers and workers should be picked out and drilled each week on the company's time."

"I'm not in favor of drilling on the company's time," Pete replied, "because that would mean an

Suggested

interruption in the work of the mill and all such interruptions should be avoided. Not that the mill would stop operating, but having so many men away from their jobs would throw things out of gear. After all, the company is usually covered by insurance and it's the workers who lose most by a fire, so they should be willing to drill on their own time."

"But if they drill on their own time everyone will look on it as just so much extra work and try to duck it," Bill came back. "Furthermore, the men won't have any enthusiasm."

"I'm going to stick my head in here and offer a compromise," Hank interrupted. "Why not have your fire-fighting brigade drill outside the company's time, but be paid for this time by the company at some fair rate. Even though the company has insurance it loses by a fire and I think this is the best way to build up a real, efficient organization that can keep little fires from becoming big ones before the regular fire department arrives."

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Do *you* believe that each mill should organize a fire-fighting force and, if so, should this force drill on company time, outside company time, or be paid for the extra time?

Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.

Employee Absences

Editor, Overseers' Round-Table:

THE TREATMENT for absences should be according to the cause. Certain absences, such as sickness, etc., are unavoidable and no disciplinary action should be taken, provided the employee notifies the firm as to the cause and duration.

There are cases when men deliberately absent themselves, which causes a loss to the company and great inconvenience to those in charge of the work. Substitutes cannot be had at once, particularly for responsible jobs. A man who absents himself like this should be warned the first time, suspended the second time for seven days, and held liable to a fine the third time, subject to the overseers' approval. A man who absents himself cannot be relied upon, and a man who cannot be relied upon is useless, whatever his other qualifications. W. E. W., England

Decentralized Clerical Work

Editor, Overseers' Round-Table:

THE ARGUMENT is often used, and put into practice, that an overseer should spend as much time as possible in the rooms of his department among the machines and operatives, so that he can constantly supervise the work being done.

When the management of the mill enforces this policy, in the interests of economy and productive efficiency it is essential that a clerk should be installed in the department to keep records. In this case nearly all records are compiled in the department, as well as pay rolls. Certain clerical work must be done in the main office, also pay rolls must be checked.

Of course, much depends on the size of the department. If it is large and many types of products are produced, then the overseer should be on the job, constantly supervising production instead of spending the time in his office. So that in this case it is advisable for the clerical work to be done in the department under the overseer's supervision in the interests of economy and efficiency.

In the case of a smaller department these conditions do not exist. An overseer need not spend as much time in the rooms as would be necessary in a larger department, although accomplishing all the necessary work. In addition there is not a great deal of clerical work to be done. What there is can be done by the overseer.

In conclusion it can be said that there is always a certain amount of clerical work that must be done at the head office. It seems to me that it is a case of allowing the overseer ample time in which to supervise personally activities in his department, while at the same time he must be in a position to check or perform such clerical work as can be done economically in his office, either by himself or by one of his assistants. W. K.

Editor, Overseers' Round-Table:

WHENEVER POSSIBLE decentralization of clerical work should be avoided.

It is against the general principles of cost accounting. In the case of the weave room, where the assistance of a clerk is required, that person should be under the direct supervision of the factory office manager and not the overseer.

An efficient system in the keeping of departmental records in a central office makes the provision for each departmental overseer to be in possession of figures essential to the economic maintenance of his department. SEER.

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Summary of Discussion On Youth Versus Age

About 65% of the contributors expressed the belief that there was too much of a tendency in the textile industry to replace older, experienced overseers with young men, and that due consideration should always be given to the knowledge that an overseer has stored up through years of effort. Another 25% stated that the young man was not given the chance that his energy and ambition deserved, while the remaining 10% believed that the whole question should be thrown out and an overseer judged solely on ability to do the work.

Withdrawal of Heavyweight Lines Helps Underwear Market

THE faculty of the heavyweight ribbed underwear manufacturers for taking decisive action when emergency conditions warrant, was never more manifest than in the recent step to withdraw their men's and boys' lines from the market until the beginning of June. While there was some doubt in the industry as to how the plan would operate, developments since the withdrawal have shown it to be quite general in observance, and also to be helpful in improving market tone. Numerous of the ribbed underwear industry executives this week told of efforts by jobbers and retailers to place orders, which were promptly rejected. So far as could be learned, no sizable contracts have been placed, and it seems likely that the embargo will be successfully maintained through the specified period.

The decision to withdraw the lines was the outcome of conditions developing since the fall lines were opened at the beginning of the year. Response to the first showings was poor, and business picked up only slightly during the month following. The situation that developed in March and April, however, changed the market picture materially. Jobbers and retailers were interested only in the low-priced lines. March brought increased activity in the call for the $4, $4.12½ and $4.25 ranges and this became more acute each week. Competition became so keen throughout the low-priced lines that prices were cut frequently, resulting in a flood of unprofitable fall orders.

Finally the demand for the cheaper underwear was so pronounced that the better-grades were practically ignored, and manufacturers faced the problem of preserving the balance of their business which threatened to become entirely a low-price proposition.

The problem reached its apex toward the end of April and then the mills decided to withdraw all fall lines from the market for a period of approximately six weeks. This plan was supported by a group of heavyweight ribbed underwear manufacturers, representing between 45 and 60% of the heavyweight underwear industry.

Buyer reaction to the news of the withdrawal was skeptical at the start; then a few inquiries began to reach the manufacturers. These were met with announcements that the fall line would be available about June 1, at which time new price lists would be issued. During the last two weeks, some real effort has been made by distributors to place fall orders — these being greeted with the same answer; wait until June.

The manufacturers who joined in the embargo are much encouraged by the result so far. They believe that they have definitely stemmed the tide toward the inferior grades, and they are now considering the plan of dropping the very low-priced lines entirely when they reopen.

One of the lessons of the action—and this is now being stressed by the I-told-you-sos in the industry—is that the fall underwear lines never should have opened as early as they did last winter. It is conceded by the manufacturers themselves that this may have been a mistake. Anyway, they answer, if it was, the new action is bringing the remedy.

It cannot be said that there is any strong distributor interest in fall heavyweight ribbed underwear at present. Jobber and retailer demand is limited for the most part to lightweights, and even at that end orders are being placed very cautiously.

The big feature of the withdrawal, however, and its chief benefit to the industry, is the good psychological effect it is having on the market. Current reports indicate that distributors are no longer of the view that fall underwear merchandise prices are something to play football with, and that this merchandise can be had for whatever they are willing to pay.

The step is only one of numerous such actions that have been taken by this division of the underwear industry. During 1930 and 1931 when the depression had the inevitable effect of cutting volume, and of delaying seasonal demand, they strengthened their position by anticipating the sales declines and curtailing their output.

Textile observers who discussed the withdrawal plan and its results this week pointed out that it carried a moral for other divisions of the industry, where perhaps a somewhat similar plan might be highly effective in offsetting the ruinous tendency toward volume business on inferior merchandise at unsatisfactory prices.

The principal companies in the underwear withdrawal movement are: Appalachian Mills Co., Knoxville, Tenn., P. H. Hanes Knitting Co., Winston-Salem, N. C.; Pannill Knitting Co., Martinsville, Va., Standard Knitting Mills, Knoxville, Tenn., Utica Knitting Co., Anniston, Ala., and Washington Mills Co., Mayodan, N. C.

Flexible Style Policy Adopted by Bigelow-Sanford

A NEW policy permitting greater flexibility in styling lines of the Bigelow-Sanford Carpet Co., is announced in a statement just issued by John A. Sweetser, president of the company. Mr. Sweetser asserted that the firm now introduces new patterns from time to time throughout the year.

"This policy," he added, "seems to serve the interests of the trade in good styling and sound merchandising better than the traditional practice of releasing new patterns only twice a year. It means that the styling of the lines becomes more flexible.

"When the stock of one of the slower moving patterns is low, we discontinue that pattern. Instead of loading up our inventory with a replacement order on such a pattern, which might later result in a quantity of drops, we replace it with a new pattern designed to meet the current demand. This helps reduce the volume of 'off-price' merchandise.

"This practice of discontinuing patterns from time to time to make room for more active patterns, means more salable discontinued patterns when they are offered, because in this way they are discontinued before they become wholly inactive. It results in a more even flow of promotional merchandise throughout the year, and does away with the seasonal glut twice a year.

"Openings, however, serve purposes other than the introduction of new patterns. It is necessary to have stated times when prices and merchandising policies are announced. Buyers take this occasion to shop the market and make their merchandising plans. Our branch managers and salesmen come here to discuss our policies and plans for the coming selling season. They meet the buyers from their territories and go over these plans with them and show them the complete lines.

"We will hold our fall opening on Monday, May 23. At this time prices, effective June 1, will be announced. The trade have a vital interest in the date at which openings are held. Intelligent merchandising calls for advance planning. Time is required to establish a sound plan of merchandising for each season, and this should be done well in advance of the active retail selling season. In order to facilitate this, buyers should be given prices and have an opportunity to see the lines well in advance of their active selling season.

▸ Toledo Dye Works Producing Mineral Khaki and New Napped Finish

Toledo Dye Works, Toledo, Ohio, has recently announced to the trade a new mineral khaki on tent and awning material and a new napped finish, called "Swaydo," which imparts a leather-like appearance to the goods. The Swaydo finish is said to render the cloth water repellent, and at the same time to increase its strength from 25 to 60% depending on the fabric construction.

▸ Tom-Thumb Bales For Cotton Week

Midget bales of cotton, wrapped in cotton bagging, are being made by the American Cotton Mills, Inc., Bessemer City, N. C., for exhibits in stores, offices etc., during National Cotton Week.

Value of New Products Appraised at Open Forum

REGARDED by some as a panacea for the depression, and by others as a hazardous expedient in times when conservation should be the keynote, new products were evaluated and given their proper place in the business picture of today at an open forum held in Boston, May 4, under the auspices of the New England Council. Nearly 200 executives attended the meeting and 76 concerns exhibited new products and promotional literature.

The point emphasized throughout the general discussion was that it was unwise to throw a new product on the market just because it was something new; but that tangible gains in business were made when the new product was the result of sound research and when it was marketed aggressively after analysis of sales possibilities. The merchandising angle was brought out clearly by Lee S. Cass, of James Hunter Machine Co., North Adams, Mass., who stated that an increase in the appropriation by his concern for advertising and selling produced results. Mr. Cass pointed out that emphasis should be placed very strongly on advertising and marketing the new product.

The importance of research was brought out forcefully when the executives visited the Massachusetts Institute of Technology, Cambridge, Mass., on May 3 and inspected the research laboratories, including the textile laboratories devoted to a study of the physical characteristics of textile fibers and the qualities revealed by the microscope.

Among the textile exhibitors the following showed new products:

Bigelow Sanford Carpet Co., Thompsonville, Conn., new types of floor coverings; Bliss Fabyan Co., Boston, Bates bedspreads and Betty Bates fabrics; William Carter Co., Needham Heights, Mass., Mouldette and Flexmode girdles, athletic mesh union suits and shirts for men, infant's shirts; J. & J. Cash, Inc., South Norwalk, Conn., conference badges in the form of book marks, friction knitted bath towels, gloves, washcloths, woven names; Nashua Mfg. Co., Nashua, N. H., silk and wool blankets, Indian Head Finesse, patterned dress goods; Pepperell Mfg. Co., Boston, Lord Pepperell shirts, regular and crib size wool blankets; Seamans & Cobb Co., Hopkinton, Mass., Japerica Twist—substitute for silk in leather and fabric stitching, Texok lining and heel pad stock, Delmar and flatlock thread; Wamsutta Mills, New Bedford, Mass., white and colored pajamas, shirts and shorts; Winship, Boit & Co., Wakefield, Mass., Merode knit underwear, bathing suits (one style of suit made of "Nantucker" a new French knit stitch of wool or silk and wool).

Among the textile suppliers were:

Barkentine, Inc., Cambridge, Mass., chemical waterproofing treatment for fabrics suggesting new uses, which does not change texture or color of fabric; Graton & Knight Co., Worcester, Mass., research tension cemented leather belting; Mossberg Pressed Steel Co., Attleboro, Mass., paperless warp beam; U. S. Gutta Percha Paint Co., flat wall finish; Veeder-Root, Inc., Hartford, Conn., textile counters.

W. S. Brewster Heads Textile Export Association

Walter S. Brewster of Pacific Mills was elected president of the Textile Export Association of the United States at a meeting held May 4, 1932. Frank S. Bruyn of Turner, Halsey Co. was chosen vice-president; W. Ray Bell, secretary of the Association of Cotton-Textile Merchants, was named treasurer, and Frederick A. Colt of the Cotton-Textile Institute, secretary.

Walter S. Brewster, Henry G. F. Lauten of Prince Lauten Co., and Louis Weithorn, of the Bear Mill Mfg. Co., were re-elected members of the board of directors. G. A. Stafford, of G. A. Stafford & Co., was elected to board.

A preliminary meeting was addressed by Thomas C. Ballagh, Department of Commerce representative in the Argentine. Mr. Ballagh spoke on general conditions in that country and on export prospects. He said that American firms are well regarded and spoke of the considerable general decline in Argentina imports during the last year as a primary cause for the loss in our exports to that country. The suspension of the gold standard by Great Britain favored cotton goods imports from that country. He pointed out, however, that many American exporters are well established in the Argentine market.

Worsted Yarn Survey Shows 1931 Production Near Peak Year

IN 1931, 155,000,000 lb. of worsted yarn was produced which was only 11,000,000 lb. below the peak year of 1929 and otherwise the largest figure since 1923 according to a survey made by Industrial Research Department, Wharton School of Finance & Commerce, University of Pennsylvania, Philadelphia, Pa.

Who Knows "Club-Foot Maloney"?

Mrs. Joseph A. Cleary is looking for her father, Thomas B. Maloney, an old woolen weaver known among his companions as "Club-Foot Maloney." If the overseers to whose attention this is brought will mention it to their weavers and report any news of her father to Mrs. Cleary at 1618 Ruscomb St., Philadelphia, Pa., they will be performing a service for both parties.

The table of yarn production by kinds for 1929, 1930 and 1931 in thousands of pounds follows:

Yarn	1929	1930	1931
		Total Worsted	
Weaving	97,019	74,854	88,934
Knitting	38,817	36,766	42,577
Carpet	9,779	5,425	3,528
Mohair	6,628	7,349	6,577
Unknown	14,371	13,469	13,321
Total	166,614	136,863	154,937
		English	
Weaving	71,747	54,027	66,227
Knitting	28,229	23,364	26,845
Carpet	9,779	5,425	3,528
Mohair	6,628	7,349	6,577
Unknown	11,838	11,114	10,789
Total	128,221	101,279	113,966
		French	
Weaving	25,272	19,827	22,707
Knitting	10,588	13,402	15,732
Unknown	2,533	2,355	2,532
Total	38,393	35,584	40,971

The summary supplied with the survey follows:

Production Changes: Actual and Equivalent 30s. More pounds of French yarn were produced last year than in 1929 but this was primarily due to a shift from finer to coarser yarns. English production, excluding carpet yarn, fell short of 1929 by about 7%.

Changes in Yarn Market. The weaving and knitting markets took more of both French and English yarn in 1931 than in 1930 but only the French knitting yarn trade took more yarn in 1931 than in 1929.

Single and Ply Yarns. Figures available only for last year show ply yarn to predominate in English spinning while an almost equal division exists between singles and plys in French.

Sales and Mill Yarn Output. The proportion sold of both French and English weaving yarn has remained close to 33% during the last three years.

Production by States. Last year 70% of the country's worsted yarn output was spun in New England, with 32% each in Massachusetts and Rhode Island.

Worsted Yarn Compared With Other Manufacturing Industries. Compared with 20 other manufacturing industries, worsted yarn suffered relatively little curtailment of production in 1930 and 1931.

In Review. In the light of the sustained consumption of worsted yarn last year one wonders if many of the mid-season price concessions were not futile, for there is little evidence that such concessions stimulated yarn consumption as a whole. Those who plead for machinery to "control" such situations should remember that it is often ignorance which breeds fear and consequent "panicky" policies.

Copies of this report may be had from the Wharton School.

Broadsilk Sales Rise 21% in March

Yardage sales of broad silks increased 21.0% during March as compared with the previous month, and decreased 14.8% as compared with March, 1931, the Silk Association of America, Inc., reports. Stocks on March 31 were 8.2% lower than on Feb. 29, and 6.1% lower than on March 31, 1931.

NEWS about MEN

E. J. Stehli, Stehli Silks Corp., has been re-elected president of the U. S. Testing Co., Inc., New York. **William Hand,** of John Hand & Sons, Inc., has been re-elected first vice-president, and **Ramsay Peugnet,** secretary of the Silk Association of America, secretary-treasurer. The following directors have been re-elected for a term of three years: **Horace B. Cheney,** Cheney Bros.; **N. Egawa,** of Morimura, Arai & Co.; **James A. Goldsmith,** of Hess, Goldsmith & Co., Inc.; **William Hand,** of John Hand & Sons, Inc.; and **Oscar Heineman,** of Oscar Heineman Corp. **Louis F. Auger,** vice-president of National Silk Dyeing Co., East Paterson, N. J., has been elected to serve the unexpired term of the late Edward F. L. Lotte, who died last September.

Crawford F. James, proprietor of Elizabeth James Mills, Marion, N. C., has been endorsed as Republican Congressional nominee from the 11th North Carolina district.

William S. Dowdell has been nominated for president of the New York Cotton Exchange, election to take place on June 6. Others nominated include: **John H. McFadden, Jr.,** for vice-president; and **Kenneth G. Judson,** for treasurer.

Rignal W. Baldwin, president and treasurer of Marion (N. C.) Mfg. Co., has been re-elected as well as the following: **T. M. Marchant,** Greenville, S. C., vice-president, **S. L. Copeland,** secretary. Other directors are **Miss Sarah R. Baldwin,** Narragansett, R. I., **Ridley Watts, Robert T. Stevens, Samuel M. Hamill, Wilfred Andrews,** all of New York; **William N. Prentiss,** of Princeton, N. J.; **William F. Beaty,** and **J. E. Sirrine,** of Greenville, S. C., and **C. F. James,** Marion.

John K. Voehringer, Jr., president of Mock-Judson-Voehringer Co., Greensboro, N. C., has been chosen a member of the permanent committee of the closed United Bank & Trust Co., at a recent stockholders meeting.

R. T. Amos, proprietor, Amos Hosiery Mills, High Point, N. C., has been elected permanent president of the Symphony Club.

James G. Hanes, president of the Hanes Hosiery Mills Co., Winston-Salem, N. C., has been re-elected a director of the Norfolk and Western Railway Co.

Capt. Elliott White Springs, president of the Fort Mill (S. C.) Mfg. Co., was elected the executive committeeman of the South Carolina Bankers' Association, group five, at the annual meeting, which was held at Fort Mill, recently.

E. A. Terrell, president of the Terrell Machine Co., Charlotte, N. C., has been elected president of the Charlotte Rotary Club.

Laurance Mayer, vice-president, Julius Kayser & Co., New York, in charge of merchandising, left last week for Australia, to inspect the company's interests there. He will be gone about three and a half months.

Gladstone E. Acker, secretary, Martinsville (Va.) Cotton Mill Co., Inc., has been elected president of the Martinsville Rotary Club.

Donald Lemieux is resident manager of the Globe Mills, of the American Woolen Co., Utica, N. Y. Other personnel there follows: **Thomas Firth,** superintendent worsted drawing, spinning, and combing; **Nelson Little,** designer; **Bert Ford,** overseer of weaving; **John Jones,** overseer of dressing; **John J. Lenahan,** overseer of finishing, and **James Walsh,** overseer of dyeing.

Wills Hunter has resigned as vice-president of the Hunter Mfg. & Commission Co., New York.

A. A. Abercrombie, for a number of years a partner of Abercrombie Knitting Mills, Ltd., Toronto, Ont., Canada, has severed his connections with the company to take the position of production manager with Lynn Sportswear Ltd., 366 Adelaide St. W., Toronto, Ont.

Harry B. Embach, of Phoenix, Ariz., has been appointed general manager of the National Wool Marketing Corp., which represents some 35,000 wool producers in the U. S. He succeeds **Byron Wilson,** of Boston, resigned. Headquarters of the corporation, a Federal Farm Board unit, are in Boston.

M. P. Epston, who has been associated for six years with S. Slater & Sons, Inc., of Webster, Mass., and New York, has been elected to the board of directors of the company.

George E. BonDurant, formerly production manager for Louis Walther Mfg. Co., Philadelphia, is now with the Oregon Worsted Co., Portland, Ore.

Jesse Bottomley, assistant resident manager of the Fulton (N. Y.) plant of the American Woolen Co., has been appointed resident manager effective May 1. He succeeds **George W. Brooker,** who recently resigned because of ill health. Mr. Bottomley went to the Fulton plant last October from S. Stroock & Co., Newburg, N. Y., manufacturers of camel hair and llama cloth, to succeed the late James A. Austin.

W. B. Boyd, manager of the three mills of Canadian Cottons Ltd., at Cornwall, Ont., for the last quarter century, has been appointed assistant manager of the company, with supervision of all the mills at Cornwall and Hamilton, Ont., Milltown, N. B., Marysville, N. B., and St. John, N. B.

C. S. Merrit is in charge of the new sales office, in New York, of the Orr Felt & Blanket Co., Piqua, Ohio. **Kenward Ribas** is associated with him in the promotion of sales.

Charles M. Reed, who has been with the bleached goods department of Garner & Co., Inc., New York, for 19 years, has joined the New York organization of Crystal Springs Bleachery, of Chickamauga, Ga. He was at one time a member of the sales force of Wellington, Sears & Co., and before that with Joy, Langdon & Co.

K. E. Mills, assistant sales manager of the Broadalbin (N. Y.) Knitting Co., is on an extended business trip through the southern and western states.

J. Colby Lewis, former superintendent of Arkwright Corp., mill No. 1, has become manager of the cotton division of the Clark Thread Co., Newark, N. J.

W. E. Evans has resigned as superintendent of Irene Mills, Spartanburg, S. C.

Textile Calendar

Second National Cotton Week, May 16 to 21, 1932.

American Cotton Manufacturers Association, annual convention, Atlanta-Biltmore Hotel, Atlanta, May 20 and 21, 1932.

National Association of Woolen and Worsted Overseers semi-annual meeting, Rocky Point, R. I., May 31, 1932.

Philadelphia Textile School, Commencement, Philadelphia, June 2; alumni outing and dinner, June 3, 1932.

Chicago Yarn Men's Circle, 11th annual golf tournament, Nippersink Lodge, Genoa City, Wis., June 22 and 23, 1932.

American Society for Testing Materials, annual meeting, Atlantic City, N. J., June 20 to 24, 1932.

Southern Textile Association 24th annual meeting, Hendersonville, N. C., June 24 and 25, 1932.

Southern Textile Exposition Textile Hall, Greenville, S. C., Oct. 17 to 22, 1932.

Southern Textile Association, regular fall meeting, Greenville, S. C., during week of Oct. 17, 1932 (exact date to be announced later.)

National Association of Cotton Manufacturers, Boston, Oct. 26 and 27, 1932.

Leonard S. Farr has been appointed superintendent of the Farr Alpaca Co.'s mill No. 2 in Holyoke, Mass., to fill the vacancy caused by the recent death of Arthur Wood. Mr. Farr is son of a former mayor of Holyoke and a descendant of the founder of the mills.

E. M. Holt, formerly superintendent of mill No. 4 of Erwin Cotton Mills Co., Durham, N. C., and who is now assistant manager of the company, has been succeeded by **M. R. Harden** at mill No. 4. Mr. Harden was superintendent of mill No. 1; his place there has been taken by **J. L. James,** formerly foreman of spinning at that plant. Mr. James and Mr. Harden are both graduates of North Carolina Textile School.

A. F. Wendler has been transferred from the du Pont mechanical-experimental division at Buffalo, to the DuPont Rayon Co., at Old Hickory, Tenn., in the capacity of control supervisor.

G. E. Park, illuminating engineer of the General Electric Co., Charlotte, N. C., and **Paul Tysinger,** lighting specialist for the Southern Public Utilities Co., Spartanburg, S. C., recently delivered three talks and demonstrations on lighting before the textile students at Clemson College, S. C.

Stuart M. Close will have complete charge of the styling of the lines of three hosiery mills, namely: Locke Hosiery Mills, Philadelphia; American Textiles, Inc., Bay City, Mich., and the Bell Meade Hosiery Mills, Nashville, Tenn.

M. P. Harden, superintendent, Erwin Cotton Mills Co., Plant No. 4, West Durham, N. C., spoke before the Tompkins Textile Society, at N. C. State College, Raleigh, N. C., May 3, on textile research and mill problems.

Members of the Durene Association: Clarence L. Meyers, president, Clarence L. Meyers, Inc., Philadelphia; James F. McCrudden, Aberfoyle Mfg. Co., Philadelphia; J. B. Frierson, Jr., treasurer, Dixie Mercerizing Co., Chattanooga; E. L. Dale, sales manager, Aberfoyle Mfg. Co.; Hugh McConnell, vice-president the Hampton Co., East Hampton, Mass.; E. L. Starr, director-treasurer, Durene Association of America; A. K. Winget, secretary-treasurer, Armstrong Winget Mills, Gastonia; Charles R. White, Washington, D. C.; George H. Ellis, vice-president, Dixie Mercerizing Co.; J. P. Holt, general manager, Aberfoyle Mfg. Co. and chairman of the Durene Association advisory board; J. S. Wilcox, secretary, Johnston Mills Co., Charlotte; P. H. McKinney, vice-president and general manager, Standard-Coosa-Thatcher Co., Chattanooga; John R. Hart, York, S. C.; J. S. Verlenden, president, Standard-Coosa-Thatcher Co. and president of the Durene Association; R. B. King, secretary, the Hampton Co.; and Carl Hart, York, S. C.

C. W. Becker, who resigned recently as consulting engineer with the Mohawk Carpet Mills, Amsterdam, N. Y., has taken a similar position with the State government.

H. B. Summerell, technical expert of the American Glanzstoff Corp., Elizabethton, Tenn., recently delivered an address before the textile students at N. C. State College, Raleigh, N. C.

Edward McDermott, Jr., son of **Edward McDermott, Sr.,** overseer of finishing at Adelphia Worsted Mills, Philadelphia, is now in charge of finishing for the Goodimate Co., Philadelphia.

Herbert Massey, formerly with Wassookeag Woolen Co., Keene, N. H., has replaced **Fred Eayrs** as overseer of dyeing at Mayo Woolen Mills, Millbury, Mass.

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Obituary

Dr. Jacques C. Hartogs

Dr. Jacques C. Hartogs, founder and former president of the American Enka Corp., and a leader in European rayon development, died at Basel, Switzerland, according to advices received Monday by the New York offices of the American Enka Corp. Dr. Hartogs was 53 years old and lived at Arnheim, Holland. He organized the N. V. Nederlandsche Kunstzijdefabriek Enka, better known here as the Netherlands Artificial Silk Co., which was the parent of the British Enka Artificial Silk Co., and the American company. The American Enka Corp. was formed in 1928 following a visit by Dr. Hartogs to this country, and he became president, holding office until 1930, at which time he had begun withdrawing from active participation in his various interests. He was succeeded as president by F. H. Fentener Van Vlissingen, but still remained on the board of directors. Dr. Hartogs' work for the development of rayon was warmly commended in a statement by A. J. L. Moritz, vice-president of the American Enka Corp., issued at the plant at Enka, N. C. He is survived by his widow.

J. M. Robertson

J. M. Robertson, president of J. M. Robertson Knitting Co., Ltd., Toronto, Ont., Canada, died last week in his 68th year. He founded the company in 1920.

Lorin C. Sawyer

Lorin C. Sawyer, aged 69, agent of Brown Mills, American Woolen Co., Dover-Foxcroft, Me., who retired in 1931, died last week. Mr. Sawyer was born in Madison, Me., and started work in the Madison Woolen Mill. He went to the Brown Mfg. Co., at Dover-Foxcroft, 38 years ago as overseer of dyeing. He soon became superintendent of the company and was made agent, which position he held when the company was purchased by the American Woolen Co., about 33 years ago. Under his administration the mill doubled its capacity.

L. A. Kiser

L. A. Kiser, president of Sadie Cotton Mill Co., Inc., Kings Mountain, N. C., died in a Lincolnton (N. C.) hospital, May 2, following a week's illness of pneumonia. Mr. Kiser was a leading citizen of Kings Mountain; in addition to his connection with the textile industry, he was a director of the First National Bank and scretary-treasurer of the Kings Mountain Farm Loan Association. He is survived by his widow and five children.

R. L. Wood

R. L. Wood, superintendent, Watts Mills, Laurens, S. C., was killed in an automobile accident near Waycross, Ga., April 30. W. F. Gaston, overseer of weaving, and W. W. Splawn, overseer of spinning, both connected with Watts Mills, were injured in the same wreck. Mr. Wood, who had been superintendent of Watts Mills for two years, was a son-in-law of the late E. A. Franks, superintendent of Brookside Mills, Knoxville.

NEWS about MILLS

Cotton

Colonial Lace Mfg. Co., Inc., Middletown, Conn., has leased a part of the former **Burns Mfg. Co.** mill to house new lace machinery recently purchased in Great Britain. The new equipment is now being installed. Six other machines are operated in the main plant. Archibald G. Wilcox, president and superintendent, said the changes would increase the concern's capacity by one-third. Prospects of additional business this summer caused the move to be made, he said. The plant has been operating continuously for two years.

Floyd Cranska Co., Moosup, Conn., thread, has increased the size of its water-power drive-shaft equipment following breakage of an old shaft recently.

American Thread Co., Willimantic, Conn., will sell Columbia Lake, used as a storage reservoir for its water power, to the Town of Columbia. The town selectmen have been authorized to pay $25,000 for the lake, created by the thread company in 1865 when a stream was dammed. Assistant Agent Carlton S. Pollard, of the thread company, has said that water power would continue to be used from the Willimantic River, but that a storage reservoir is no longer needed.

Meritas Mills, Columbus, Ga., have had a Morton double circulating raw stock dyeing machine installed. This is the third installation in the last few months.

Mary Leila Cotton Mill, Greensboro, Ga., is having steel rollers on spinning frames equipped with Guillet tapered fitting necks; work done by Dixie Spindle & Flyer Co., Charlotte, N. C.

***Pemaquid Mills,** New Bedford, Mass., recently acquired by Jerome A. Newman, started operations last Monday. It is understood that the stock in process will be run off.

Aponaug Mfg. Co., Kosciusko, Miss., is installing a number of additional carding machines, and is having the fly frames overhauled. R. F. Goodroe, of Atlanta, Ga., is doing the work.

J. W. Saunders Cotton Mill, Inc., Starkville, Miss., is rearranging the slasher and warper room, and relocating the dyehouse.

Gaston Mfg. Co., Cherryville, N. C., will be sold at auction on May 19, by Clyde R. Hoey, trustee. The property includes two mill buildings, 76 x 200 ft., and 77 x 241 ft.; 50 tenement houses; two large warehouses equipped with sprinkler systems; the machinery and considerable adjoining property. The machinery includes: 12,000 ring spindles and 3,000 twister spindles.

American Cotton Mills, Inc., Gastonia, N. C. Fire destroyed approximately 600 bales of low grade cotton May 3, in a warehouse belonging to the company.

**Indicates previous mention of project.*

***Hanover Mills, Inc.,** Gastonia, N. C., according to official report, are operating on a two day week daylight schedule, which is about 40% of their normal operations.

Valdese (N. C.) Mfg. Co., Valdese, N. C., is running on a full time production schedule, with close to normal working force.

Erwin Cotton Mills Co., West Durham, N. C., will break ground at once for a one-story addition to local mill, 65x100 ft., to be used as a slasher room, for processing and storage of warps. The unit is scheduled for completion in July. General contract has been let to the Muirhead Construction Co., Durham, N. C.

Derk Mfg. Co., Doylestown, Pa., tapestry and woven goods. A bill in equity has been filed asking for appointment of a receiver to take charge, manage and liquidate the corporation. Two months ago a fire destroyed a large portion of the plant causing a loss of $200,000. The company received $25,000 insurance two weeks ago, and a settlement has been agreed upon for $190,000 additional insurance.

Joseph Bancroft & Sons Co. of Penn., Reading Cotton Mill, Reading, Pa., will close the plant for an indefinite period, for the first time in the memory of local citizens. Present orders will be completed, and any new orders received will be filled. John A. Skedgell, vice-president and general manager, has stated that the program includes running looms producing cloth, together with other machinery, every other week. The company will pay insurance premiums during the shutdown; employees living in company houses will not be required to pay rent, and those needing assistance will be helped as far as possible.

Columbia Narrow Fabric Co., of Shannock, R. I., is installing a new water wheel and turbine to cost about $15,000. The mill has discontinued its night work and is on a two shift basis with the first shift beginning at 6 a.m. and stopping at noon; the second shift goes from noon to 6 p.m.

Fort Mill (S. C.) Mfg. Co., manufacturer of wide sheetings, has, since Feb. 1, been operating at 75% of normal. Beginning May 1, these mills will suspend operations one week per month for an indefinite period in addition to the curtailment already in effect.

Kershaw (S. C.) Cotton Mills. Spooling and warping equipment is now being replaced with Barber-Colman machines.

Jackson Mills, plant No. 2, Wellford, S. C., are installing sufficient Barber-Colman spooling and warping equipment to handle all production. Mill No. 1, at Iva, S. C., replaced the spooling and warping equipment earlier this year.

Wool

Peerless Woolen Mills, Rossville, Ga., have installed 40 new looms, to take the place of that number of old looms.

Park Woolen Mill, Sabbatus, Me., sustained a loss estimated at $7,000 from fire.

***Green River Woolen Mills, Inc.,** will reopen the former William E. Tillotson textile plant, West Pittsfield, Mass., soon, according to President Philip J. Ahlers. James Shanefine is general manager. The Green River concern took over the West Pittsfield plant last summer.

Chenille Rug Co., Minneapolis, Minn., will repair recent fire damage to mill on Filmore St., causing a loss estimated at $10,000.

Orr Felt & Blanket Co., Piqua, Ohio, will construct a one-story extension to the plant, 46x90 ft., for the purpose of rearranging machinery. The estimated cost is given as $10,000. It is expected that the building will be completed by August.

John Culbertson & Sons, Philadelphia, for many years manufacturers of fancy cotton, woolen and worsted dress goods, have purchased 40 additional broad looms. They are now making a line of fine fancy worsteds for men's wear. Harry Alt & Co., Inc., 257 Fourth Ave., New York, have been appointed selling agents for this new line.

***Manayunk Plush Mfg. Co.,** Philadelphia, Pa. Mill of this company at Lemonte and Umbria Sts., 395x398 ft., and at 108 Levering St., 42 x 100 ft., has been sold at a public sale by Samuel T. Freeman & Co., for a total consideration of $25,000. Purchaser's name has not been announced.

Centredale (R. I.) Worsted Co., plant in the Olneyville section of Providence, has closed for an indefinite period. Operations will be resumed upon receipt of orders. The company operates plants at Olneyville, Centredale, Allendale and Stillwater, R. I., with main plant and offices in Centredale. The Olneyville plant is the combing and dyeing division. About 100 operatives are affected by the shutdown.

Dominion Woolens & Worsteds, Ltd., Peterborough, Ont., Canada. Report in April 30 issue of TEXTILE WORLD, stated that the company would devote considerable output to woolens, replacing worsted manufacture. Although woolens are being developed, they are an additional line, and in no way replace the worsteds which the company has made since its organization.

Knit

Montgomery Knitting Mills, Summerville, Ga., are adding a number of new machines in recently enlarged mill, and will increase capacity as soon as the equipment is ready. The plant is running on a double shift, day and night schedule.

Chester Knitting Mill Co., Charles City, Ia. Properties of the company have been deeded to trustees for subscribers in a court order signed by Judge J. J. Clark.

Firsching Knitting Mills, Utica, N. Y., are now being equipped by **Daniels & Co.,** of New York, which plan a consolidation of their several branches at Utica.

Walnott Knitting Co., Utica, N. Y., has increased operations, and is running near capacity.

Pryor Hosiery Mills, Inc., Jasper, Tenn., are now giving work to about 100 employees, and are running on full time, according to W. W. Turner, treasurer.

Robinson - McGill Hardware Co., Shelbyville, Tenn., is adding machinery to increase its underwear capacity 50%.

Woolsey Knitting Mills, Shelbyville, Tenn., now have about 75 employees. They have moved into their new building.

Becker Ingrain Hosiery Mills, Fort Atkinson, Wis. The court has appointed John E. Fitzgibbon, of Milwaukee, as receiver for the company. No figures are available yet on assets and liabilities. The plant has not been in operation for about a year. The company manufactured 54-gauge hosiery and erected a building for the purpose when the firm was organized nearly three years ago.

L. E. Lavoie & Co., Hastings, Ont., Canada. Mill of this company was slightly damaged by fire, April 27. An official estimate of loss has not been made. The damage will be repaired.

***Circle-Bar Knitting Co., Ltd.,** Kincardine, Ont., Canada, has completed plans for a four-story and basement, brick and steel addition, 50x125 ft., and will begin superstructure at once. It is reported to cost close to $90,000. Company recently placed orders for equipment for the new unit for worsted spinning operations. Contract for structural steel for the building has been let to the Disher Steel Co., Toronto, Ont.

Richmond Hosiery Co., Ltd., London, Ont., Canada, has awarded contract for addition to boiler house 15x22 ft.

**Indicates previous mention of project.*

J. Lyons & Co., Ltd., of London, Eng., have opened a knitting plant at Toronto, Ont., Canada.

Silk

Teson Silk Mills, Inc., Paterson, N. J., recently organized 1,000 shares of capital stock, will be represented by Abraham I. Feltman, 45 Church St., Paterson, attorney. The incorporators are Joseph G. Wolfe, Paterson, and Robert J. Rubacky, Jersey City, N. J.

Onondaga Silk Co., Inc., Ogdensburg, N. Y., has resumed operations following a shutdown.

***National Weaving Co.,** Central Falls, R. I., newly organized, which has taken over the plant of **General Fabrics Corp.** there, will open the mill soon. George Manton, superintendent of the plant under the General Fabrics Corp., will serve as resident manager. The mill was sold at public auction on April 7 to **E. Gerli & Co., Inc.,** of New York, holders of a $500,000 mortgage on the property.

Finishing

Louis Terry Corp., Nicholasville, Ky., formerly of Chicago, Ill., has been placed in the hands of co-receivers, Farmers Exchange Bank and R. L. Bronaugh, of Nicholasville. This action followed the filing of a friendly suit by a group of Chicago creditors. The bill of complaint states that the concern is solvent but that creditors are pressing for collecton of accounts. The plant will continue in operation.

Atlas Finishing Co., North Bergen, N. J. Paul Davagne, of Passaic, N. J., has taken title to the two-story brick plant at southwest corner of Paterson Plank Rd. and Grove St., which he purchased at foreclosure sale.

Unity Silk Dyeing & Finishing Co., Inc., Paterson, N. J., recently organized, will be headed by Romano Guala, 65 Seventh Ave., Paterson. The company is capitalized at $125,000. Pasquale DeVito, 112 East 16th St., Paterson, is also interested in the new company.

Standard Textile Products Co., Buchanan, N. Y. All table oilcloth, formerly made at the Rock Island plant, will now be produced at Buchanan. Six foremen will go from Rock Island, Ill., to the mills near Peekskill.

Southern Bleachery & Print Works, Inc., Taylors, S. C., have postponed construction of the warehouse for cloth storage that was recently planned. Harry R. Stephenson, president of the company, stated that this proposed construction would not be started until improvement in textile conditions is sufficient to justify the building.

Miscellaneous

John Mossmann & Sons, Inc., North Bergen, N. J., recently organized with 2,500 shares of capital stock, to operate a machine embroidery works, will be represented by Charles A. Woodruff, 31 Clinton St., Newark, N. J., attorney. John and Charles T. Mossmann head the new company.

Atlas Woven Label Co., Paterson, N. J., recently chartered with capital of $125,000, will be represented by Atwood C. Wolf, 26 Journal Sq., Jersey City, N. J., attorney. The principal incorporators are Julius Donant, Maywood, N. J., and George H. Bennett, Mount Vernon, N. Y.

Rome Co., Inc., Anable Ave., Long Island City, N. Y., manufacturer of bedding, has leased space in Montgomery Building, 254 Court St., Buffalo, N. Y., totaling 10,000 sq.ft., for branch and distributing plant.

Yonkers (N. Y.) Mattress Co., has been formed with capital of $25,000. The company is headed by Samuel I. Osofsky, 30 South Broadway, and Louis D. Posner, 106 Highland Ave., both Yonkers.

Schlegel Mfg. Co., Ltd., a recently opened branch of Schlegel Mfg. Co., Rochester, N. Y., has added a line of gimps and welts used in furniture upholstery, to its line of trims for auto body builders. The plant is at 165 Dufferin St., Toronto.

◆

New Books

ORGANIZATION IN THE COTTON TRADE; By F. Greenhalde; John Heywood, Ltd., Manchester, England; Price 1/6.

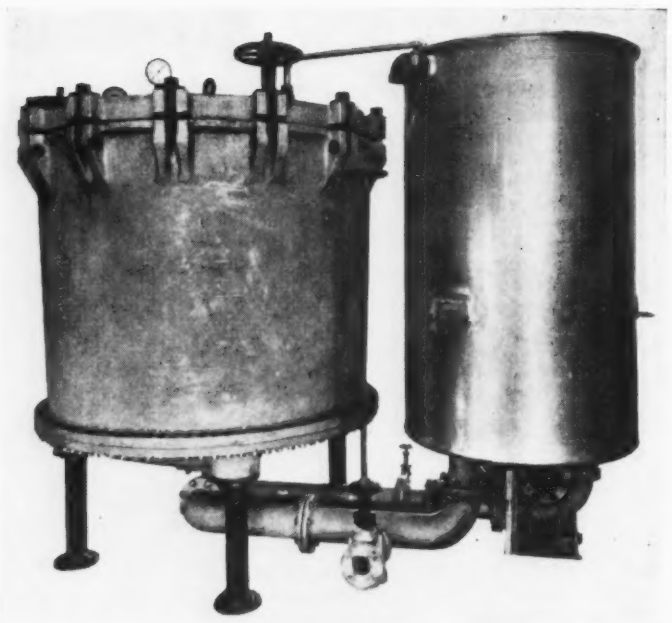
A discussion of the report on the cotton industry recently made by a committee of the Economic Advisory Council is contained in a 40-page booklet. Interesting sections of the report are extracted, and these subjects are discussed at some length. The booklet is divided into three general sections, namely, the present position, a standard costing system, and the cotton report. Such subjects as ring spinning, high-draft spinning, high-speed winding and weaving should be of interest.

THE SILK AND RAYON DIRECTORY AND BUYERS' GUIDE OF GREAT BRITAIN; John Heywood, Ltd., Deansgate, Manchester, England; Price 21s.

The eighth successive issue of the Silk and Rayon Directory and Buyers' Guide embodies numerous revisions and improvements which add to its value as a reference directory of all firms engaged in the manufacture of silk and rayon yarns, fabrics, etc., in Great Britain.

An attempt has been made to include in the Directory all of the firms in Great Britain producing or using rayon or silk. There are 223 pages.

New Machinery *and* Processes



Equipment for dyeing raw stock

Raw-Stock Dyeing Machine

DESIGNED as an addition to, but not a replacement of, older models, a new raw-stock dyeing machine is announced by Franklin Process Co., Providence, R. I. It operates on the same principle as other models, but differs in that it is entirely of cast metal-alloy.

This model is declared to be particularly suitable for the dyeing of light, delicate shades. Very few dyestuffs are sensitive to the alloy used in this machine. Furthermore, it is asserted that it is practically self-cleaning, so that it is possible to change from dark to light shades with a minimum of effort.

It operates with a closed kier under pressure. The expansion tank, through which the dye liquor is added, is open. The dye liquor is circulated through the stock in one direction, from the top down. After being dyed, the stock is removed from the machine by means of a false bottom and center post to which is attached a chain hoist.

The advantages claimed for this type of equipment are superior condition of the stock after dyeing, reduced labor cost; low upkeep; and a saving in dyestuffs, chemicals, and steam.

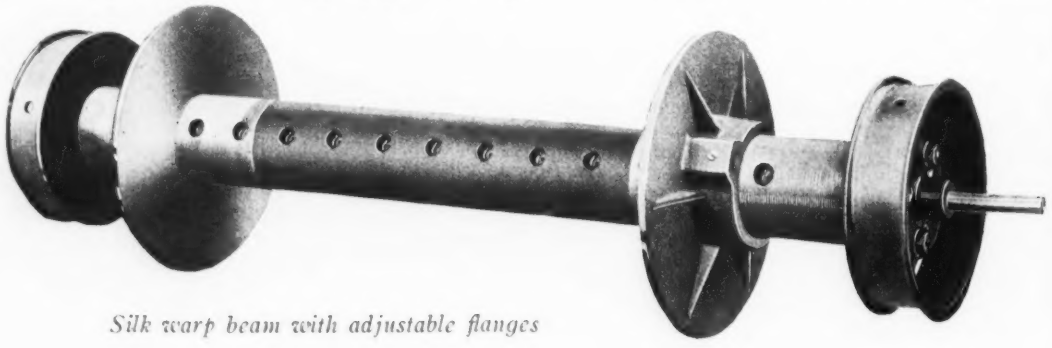
Adjustable-Flange Paperless Warp Beam

ANNOUNCEMENT is made by Collins Supply & Equipment Co., Scranton, Pa., of the development of a new adjustable-flange, paperless warp beam.

This beam, manufactured by the Milton Machine Works, Milton, Pa., is adjustable for warps of different widths. Adjustment is made by means of threads on the inside of the flange. The threads engage with a threaded steel tube which is pressed on the ends of a wooden beam. The flange is locked securely in position by means of a brass pressure bar inserted in it.

The inside of the beam is counterbored to admit the end of the warping paper under the beam flange, thus doing away with buckling of the paper at the outside of the warp. One layer of paper is all that is used, and its purpose is to separate the warp from the threads on the tube. The beam shaft does not extend the full length of the beam, thus making replacement a more simple matter.

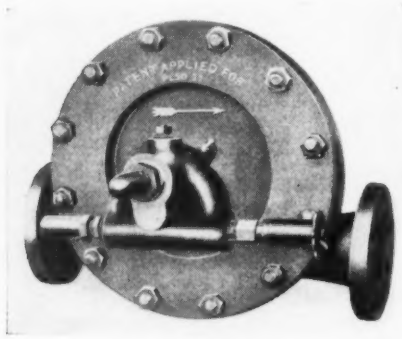
One of the interesting features is that the Milton beam is constructed from warp beams and beam heads already in use.



Silk warp beam with adjustable flanges

Automatic Proportioner

FOR injecting small amounts of one fluid into another liquid in predetermined and adjustable percentages, the T. C. M. Manufactures Co., 300 First St., Harrison, N. J., is offering an automatic proportioner, known as the Mixitt.



Device for mixing two fluids in predetermined and adjustable percentages

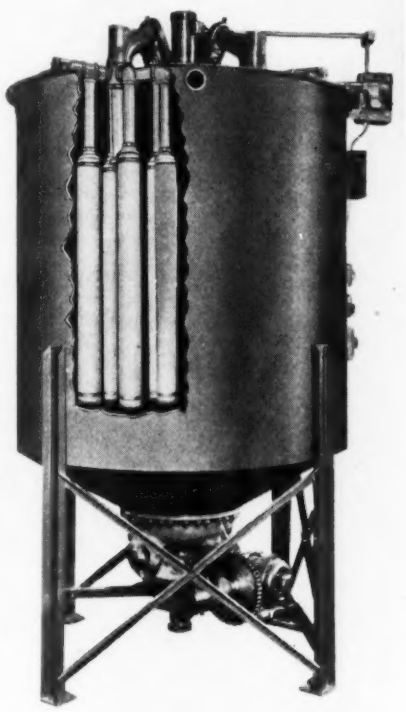
This device, which was originally employed in the petroleum industry, is believed to have a number of applications in textile mills in those processes which involve the mixing of two liquids continuously. Uses which have been suggested include the treatment of boiler-feed and process water, preparation of bleaching solutions, mixing of dye liquors, etc.

The device is installed in the pipe line

through which the liquid to be treated is being pumped, the flow of liquid through the pipe operating the machine. The liquid to be injected is fed to the Mixitt under pressure, and by means of a reciprocating piston, the machine measures the amount of reagent and passes it into the pipe line at intervals of approximately 400 times per min. In this way a continuous and intimate mixing of the two fluids is obtained. The equipment is available in various sizes and in models suitable for handling both corrosive and non-corrosive solutions.

Equipment for Clarifying Water and Process Solutions

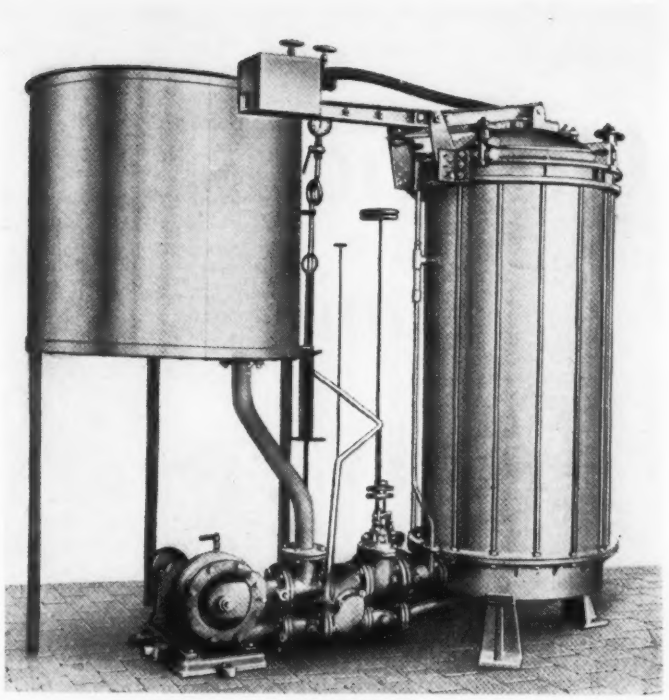
THE Genter thickener, a filter-thickener operating on the vacuum filtration principle, has been announced recently to the textile industry by the Genter Thickener Co., 50 Broad St., New York. This type of equipment has found favor in a number of industries for the clarification of feed water, purification of processing solutions, and recovery of valuable insoluble constituents from waste liquors. In textile mills applications in which the thickener is expected to prove of value include pretreatment of boiler-feed and process water, purification of mercerizing liquors, clarification of wool-scouring liquors, recovery of tin-weighting materials, etc.



Filter-thickener for clarifying feed-water, processing solutions, and waste liquors

The Genter thickener removes the solids from suspensions by filtration; the liquid is passed through a suitable medium which retains the suspended solids on its exterior, and the solids are removed in cake form, periodically and automatically into the mixture being thickened. The solids sink to the bottom of the tank and are removed to a central discharge point by means of slowly revolving rakes. The density of the discharged mud is controlled by a special mud valve.

Among the advantages cited for this type of equipment are small floor space required, high thickening-clarifying efficiency, and low installation cost. The thickener is available in various sizes, ranging from those for laboratory work to plant equipment handling 20,000 gal. per hour, or more,



Machine for dyeing rayon in package form

Rayon Package Dyeing Machine

ANNOUNCEMENT of a rayon package dyeing machine has been made recently by American Obermaier Corp., 11-20 49th Ave., Long Island City, N. Y. This type of equipment, which marks the culmination of five years' development work, was first placed in commercial operation about six months ago. It is stated that since that time several hundred thousand pounds of rayon has been dyed in the package form on these machines, and that this rayon has been employed with satisfactory results in the manufacture of diverse styles of woven and knitted fabrics.

Advantages cited for this rayon package dyeing machine include the elimination of skein winding, preservation of the original quality of the yarn, elimination of bar effects, and possibility of guaranteeing absolutely even dyeing of 2-lb. packages. The equipment is of all-Nickeline construction and embodies a unique circulation system for the dye liquors. Machines so far manufactured and in operation are of one- and two-case capacity (220 to 440 lb.).

New Dyestuffs

General Dyestuff Corp., 230 Fifth Avenue, New York, has announced the following new products:

PALATINE FAST BLACK WAN EXTRA, a new dyestuff which yields a full bloomy black; possesses good leveling properties and very good solubility. It possesses the very good fastness to light, perspiration, carbonizing, alkali, and decatizing; and excellent fastness to water. This product is suitable for the dyeing of knitting and weaving yarns, provided the latter are not subjected to a severe fulling. The new brand may also be used with advantage for piece-dyeing, the dyeing of tops and loose wool, provided the latter is subjected to a flannel or worsted yarn fulling only. It may also be used for bathing suits, provided the requirements are not too severe. Palatine Fast Black WAN extra, in the direct printing of wool, weighted and unweighted silk, yields prints of remarkably good fastness to water and perspiration, so that it will also meet with interest for this branch of textile printing. In the dyeing of pure silk the new dyestuff yields shades of very good fastness to light, good fastness to washing and water, and excellent fastness to rubbing. It is suitable for machine dyeing.

INDOCYANINE BA, a new acid color, which when dyed from a neutral or from a weak acid bath, produces shades of navy which are distinguished by very good fastness to light, washing, perspiration, water, and salt-water. Indocyanine BA surpasses the Sulphon Cyanines in fastness to stoving, decatizing, and perspiration, and withstands a prolonged boiling. It also dyes more level than the Sulphon Cyanines The product is suited for covering the wool in union dyeing and has very good affinity for pure as well as for tin-weighted silk It is not dischargeable.

Questions . . . *and* Answers

Bow in Low-Count Fabric

Technical Editor:

You will note the bow in the filling of the attached piece of cloth. Will you please tell us how to correct this trouble? (7866)

The sample submitted is of low cloth count, and it is a rather difficult matter to keep the picks absolutely straight with this construction. It is the introduction of the colored filling bars that accentuates the bow in the cloth.

When a cloth is of low pick count, the pull on the cloth is usually greater for a distance of from 3 to 5 in. on each side of the cloth. This leaves the balance of the cloth rather slack, and it is this slackness that makes the bow in the filling. The only way in which this bow can be controlled is by bowing the breast beam of the loom—this bow to be made from a piece of wood, the wood to be shaped equal in bow to the bend of the filling in the cloth. In order to secure the correct shape of bow in the piece of wood, the cloth should be placed on a flat surface and the amount of the bow measured from selvage to selvage. The maximum of the bow will be found about in the center of the cloth. When the wood bow is shaped it should be fastened to the breast beam of the loom and as near to the temples as is possible. A device of this kind has a tendency to reduce the strain on the selvages of the cloth and thus saves wear and tear on warp yarn.

▼

Warp Streaks in Wool Crepe

Technical Editor:

I am sending under separate mail today samples of finished wool crepe.

The material used is Wisconsin medium ¾ wool. The warp is 3 run; and the filling, 2½ run. The streaks show only in the warp. You will see that one-half of the cloth shows streaks in warp and the other half is all right. The superintendent and boss weaver say that the streaks are caused from uneven yarn. The yarn varies sometimes about ¼ run. The batches of wool run differently. Some are very dingy or yellowish. The shorter wools are not scoured well. They are left a little greasy. In some batches there is 20% of dirty white shoddy, while in others all clean wool is used. They put fifteen cuts on a warp beam, and, of course, tie in different warp spools to finish warp. I would be very glad to hear your suggestions on samples. (7849)

Having examined this wool crepe we have come to the conclusion that the streaks were caused by mixed lots. If your blends vary so much, you should be very careful not to mix your lots.

▼

Streaks in Face-Finished Fabric

Technical Editor:

I am sending you a sample of a face-finished fabric which is badly streaked. I have tried several kinds of soap, but the results are the same. The streaks are very dim after washing; but the napping and gigging bring them out. I crab all of the pieces. I have also tried crabbing, drying, and then pressing before napping and gigging, but the result is still the same. I use a soaper and a fulling mill. I have also tried soaping in the mills by hand, but again with the same results.

I thought that uneven fulling-mill rolls might have something to do with this; however, when I trued them up, it was the same story. (7852)

One of the first precautions is to be sure that you have the proper consistency of soap in fulling these goods; i.e., the proper amount of soap and alkali to emulsify the oil that has been used in preparing the stock. Should a thin, watery soap prevail at any time during the fulling process, there will be little chance of correcting the trouble.

We assume that the goods are tacked and that the seams are sewn when the fabric is placed in the fulling mill. We suggest that you complete the sewing of the listings by sewing the ends, thus making a complete bag. When the fulling is half completed, take the goods out and reverse them end for end, finishing them in this manner.

Another suggestion is to wet out the goods thoroughly in the washer in the same soap that is used during the fulling. Then run them for 20 min., taking them out in the soap, and extracting the surplus. Next put the fabric in the mill, following the same methods as suggested above. It will be necessary, however, to add a little more soap after extracting. While this procedure is not to the liking of the average operative, we believe that you will find the results to be worth while.

▼

Blending Worsted Tops

Technical Editor:

We occasionally have to be put through the drawing an order of top in which there is more than one lot of top used, and also a difference in the weights of the slivers. Following is an example:

50% of Lot A (5 yd. weigh 5 oz.)
40% of Lot B (5 yd. weigh 4 oz.)
10% of Lot C (5 yd. weigh 3 oz.)

This is to be run with eight ends up in the can gill boxes. Will you kindly advise us the correct method of blending these lots so as to maintain the given percentages? (7874)

When tops of different weights per 5-yd. lengths are to be blended, it is not advisable to decide beforehand how many ends are to be run at the can gill box. This is one method of blending where the doublings are governed by the result obtained in the blending calculation.

The method necessary to meet your requirements would call for a preliminary gilling of the 4-oz. and the 3-oz. tops, changing them to 5-oz. top. Then all would be alike in weight for 5 yd., and any doublings desired could be used. In like manner the 3-oz. and 5-oz. tops could be changed to 4-oz. for 5 yd.

To eliminate extra gilling the following method is used:

(1) Obtain new ratios which allow for differences both in percentage and in ounce weight. (2) By division or multiplication or both, reduce the ratios proportionately to such values that it is possible to select a set of doublings within the range of reasonable accuracy.

Example: *New Ratios*

A 50% of 5-oz. top $\frac{50 \times 5}{5} = 50$

B 40% of 4-oz. top $\frac{40 \times 5}{4} = 50$

C 10% of 3-oz. top $\frac{10 \times 5}{3} = \frac{50}{3}$

If 50 yd. of 5-oz. top, 50 yd. of 4-oz. top, and 16⅔ yd. of 3-oz. top are blended, then the desired percentages of each

will be obtained in the blend. When finding the new ratio the common factor of the base top selected (5 oz. in the example) can be cancelled; then we have each percentage divided by its own ounce weight to obtain the new ratio or:

$$\frac{50}{5}=10;\ \frac{40}{4}=10;\ \frac{10}{3}=\frac{10}{3}.$$

Multiply these ratios by 3 to obtain whole numbers: $10\times 3=30$; $10\times 3=30$; $\frac{10}{3}\times 3=10$.

A common factor of 10 is evident, reducing the ratios to a practical basis: $30\div 10=3$ ends of 5-oz. top; $30\div 10=3$ ends of 4-oz. top; $10\div 10=1$ end of 3-oz. top.

Check the final ratios for accuracy of percentage:

$5\times 3=$	15 oz.	50%
$4\times 3=$	12 oz.	40%
$3\times 1=$	3 oz.	10%
Total	30 oz.	100%

The blend you suggest will be obtained by using seven ends at the can gill. You do not state whether the eight ends desired are going into one delivery, that is, eight doublings. If the eight ends are to cover a double can gill, then, using seven ends, we suggest three ends of 5 oz. on one side, and three ends of 4 oz. and one end of 3 oz. on the other, which arrangement gives fifteen ounces to each side. At the two-spindle gill, blend end for end to obtain a 100% blended end. Summary of method:

A 50%, 5 oz. $\frac{50}{5}=10$ $\frac{10\times 3}{10}$ = 3 ends of 5-oz. top

B 40%, 4 oz. $\frac{40}{4}=10$ $\frac{10\times 3}{10}$ = 3 ends of 4-oz. top

C 10%, 3 oz. $\frac{10}{3}=\frac{10}{3}$ $\frac{10\times 3}{3\times 10}$ = 1 end of 3-oz. top

Second example:

A 25% of 3.5-oz. top $\frac{25}{3.5}$ $\frac{25\times 84}{3.5}$ = 600 $\frac{600}{120}=5$

B 30% of 3.0-oz. top $\frac{30}{3}$ $\frac{30\times 84}{3}$ = 840 $\frac{840}{120}=7$

C 45% of 4.0-oz. top $\frac{45}{4}$ $\frac{45\times 84}{4}$ = 945 $\frac{945}{120}=8$ (almost)

Proof:

A 5×3.5 = 17.5 oz. $\frac{17.5\times 100}{70.5}=24.8\%$

B 7×3 = 21.0 oz. $\frac{21.0\times 100}{70.5}=29.8\%$

C 8×4 = 32.0 oz. $\frac{32\times 100}{70.5}=45.4\%$

20 ends = 70.5 oz. = 100%

Weighted Crepe Has Harsh Feel

Technical Editor:

I am inclosing herewith a swatch of weighted crepe with 3-thread 20/22 filling, 65/70 turns per inch. You will note that these goods have a very harsh feel. The dyer states that he is unable to finish these goods in a soft handle, and suggests that we are not soaking the raw silk in the proper manner. We have no difficulty in weaving the goods; but the dyer states that he is experiencing this difficulty only with fabrics which we are sending to him. The quality of the raw stock we are using is special crack 20/22; the chop ticket is Battleship; we soak with 12% of oil at a temperature of 80 to 85° F.; the silk is then extracted and hung up evenly to dry; the twist is set with a vacuum machine. The time allowed to elapse after setting and before redrawing is from 2 to 3 hr. After the goods are woven, they are boiled out in olive oil soap for 1½ to 2 hr. The goods after boiling out and drying are much softer in feel than when finished. For soaking we use a zeolite-softened water. We shall appreciate your opinion as to the cause of the harsh feeling after finishing. (7821)

You are using a good quality of silk and your soaking bath should give good results unless the silk contains a large amount of hard gum which you would easily notice. In that event we advise raising the temperature of the bath to 90 or 95° F. Many throwsters prefer a low-pressure box for setting twists, but the method which you are using is known to give good results. This eliminates practically all of the factors except two—either the dyer is at fault, and contrary to the information given, is having difficulty in finishing goods containing silk which has been processed by other throwsters; or the soaking oil which you are using is not suitable for the particular type of silk which you are running. We suggest that you get in touch with the concern from which you are securing your soaking oil, and ask if they are able to recommend another product which will give better results on the particular quality of silk which you are running. If the company assures you that the oil which you are now employing is most suitable, we believe that you can take it for granted that the difficulty is in the finishing of the woven fabric rather than in the soaking of the silk.

Inquiries should give the fullest information possible; and if damaged materials is involved, a sample should be sent. We give no consideration to anonymous inquiries and do not undertake routine analysis of yarn or fabric, or investigation involving unusual expense.

▼

Silk Hosiery in Same Batch Dyes Unevenly

Technical Editor:

We are enclosing herewith two cut-silk hose of two distinct shades which have been dyed in the same batch. We are using a laundry machine with two compartments in which we are placing the hose in mesh bags. The dyeing is done with glauber salt, no acid being used. Once in a while a whole bag of hose will come out a different shade than others in the same batch.

The cloth and mesh from which this hose is cut is made of gum silk, and as it comes off the machine it is soaked with lukewarm water and then put on the tentering frame. Before dyeing, the hose are soaked overnight in lukewarm water in order to loosen the gum. Some time ago a portion of this cloth was degummed before being made into the hose; and we are somewhat of the opinion that some of this hose was mixed up with hose made up with the gum silk. Will you kindly give us your opinion of the reason for the two different shades? (7848)

The difference in shade in stockings in the same batch of hosiery dyed together may be the result of having gray goods and degummed goods mixed in the same lot. This could be easily overcome by separating them before sending them to the dyehouse. The boiled-off stock can be picked out easily and should be dyed by itself to obtain an evenly dyed lot. Your statement that some of the goods had been boiled off before being made into the hose identifies the source of your trouble, because it indicates that this hosiery has been boiled off twice. It is known that a prolonged boiling in soap or another degumming agent reduces the affinity of the silk for dyestuffs—hence the difference in shade obtained.

There is also a possibility that the goods have been knitted from silk coming from two or more throwsters who soak their silk with different softeners. Some throwsters use mineral-oil preparations in their softening solutions. When their silk reaches the dyehouse, trouble will follow if it happens to be mixed with silk that has been thrown by throwsters using animal preparations, such as neats-foot oil, tallow soap, or vegetable oils and olive oil soap. The mineral oils in the silk, when it is degummed, will give it a creamy appearance which, viewed by itself, is hardly noticeable. When it is worked with other silks, however, a marked difference will be apparent. Here again, the remedy is to handle separately the silk thrown by different throwsters or to patronize one throwster exclusively.

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It's been known to happen many times. A weaver or knitter shops around for yarn . . . persuades a far distant mill to shade the price . . . then wires, "Must have yarn at once. Ship express." Then he proceeds to pay a premium of two to five cents a pound on express charges. Often the lower price means prolonged delivery, and even if the yarn is not needed in a hurry when the order is placed, it must ultimately be shipped express.

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Thomas F. Glennon, Agent

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◆ *Survey of Fabric, Knit Goods, Yarn and Raw Material Markets* ◆

TEXTILE WORLD ANALYST

Worsted Yarns Need Standardizing or Quality Selling

◆

The vexing problem of price competition in textiles can be traced sometimes to other causes than high inventory and overproduction. The situation in the worsted yarn industry offers an example of how a lack of standardization and quality selling can create artificial competition. Despite admitted differences in quality of different spinners' products, each undersells the other, with the result that yarns of higher grade do not bring the price their quality merits.

THE present very low rate of activity in worsted spinning has served to accentuate certain difficulties that have been increasingly noticeable in the conduct of this business during the last few years. Naturally — and perhaps unfortunately—price is the starting point of every discussion with worsted yarn men.

Anyone who has endeavored to secure what might be called "market" prices on worsted yarns has run up against the problem of meeting with a diversity of opinion on what, say, an English 2-40s 64s is selling for. The explanation usually given is that there is a difference in the quality of yarn produced by different spinners. The explanation is logical, particularly when it is recalled that once when an exhibit was arranged, showing a dozen samples from different spinners of supposedly the same grade of knitting yarn, examination showed that no two of the samples were alike. In fact, there was a very marked difference between the best and the worst of the samples.

The unfortunate part of the price situation is that, despite the admitted difference in quality of different spinner's products, each spinner is very much inclined to consider himself in price competition with every other spinner. One producer said recently:

"The situation is terrible. My salesman went into a mill the other day and quoted a price on a certain yarn. The buyer laughed at him and showed him quotations from competitors ranging from 5 to 7½c. per lb. below ours. I looked over my costs carefully and I know that our competitors will lose at least 5c. per lb. on such prices even if they run 90% of capacity, and they probably won't run over 25%. What can you do?"

In the same conversation this spinner remarked that some of his competitors had been cutting corners on quality. He did not, however, connect this situation up with the fact that these competitors were under-quoting him.

In the exhibit of samples mentioned, the products of no two of the dozen or so spinners represented were the same in even such a matter as twist, to say nothing of hand and general appearance. And yet all but one, or two at the most, of these spinners indulged in a dog-fight on price whenever an inquiry showed up. The only possible explanation is that the spinners did not do a real job of selling on a quality basis or that the customers were largely ignorant of quality when purchasing. Prices are largely based on those quoted by the man producing the lowest quality yarn of a certain grade.

Inquiries in the trade substantiate the belief that many worsted yarn buyers have no real conception of quality. They must, of course, secure a yarn that will run on their looms or knitting machines and produce a fabric of a certain general appearance, but they pay little attention to the real possibilities contained in yarns of different qualities. Buyers of cotton yarns have shown more alertness in this respect, probably because it is so much easier to determine the quality of a cotton yarn.

If the blame is placed upon the buyer for a condition where, in general, yarns of different quality are all in the same price battle, there is little to be gained by roundly cursing the buyer and saying that he should mend his ways. The only thing that spinners can do of a constructive nature is either to sell in such a manner that buyers will be educated to quality or get together and develop some better designation for yarn standards so that yarns turned out by different spinners will not be so divergent.

The answer is probably that there is room for both types of effort. In some lines standard specifications would place spinners on a more even footing as regards quality when the price scramble started. On the other hand, on lines that cannot be given greater standardization because different customers require different qualities it seems that the obvious thing to do is to sell on quality alone.

The present price situation in worsted yarns has other textile analogies. For example, cotton percale is made in many qualities, but all "percales" look alike to many buyers when price enters the picture. Standardization or quality education has been stressed as the only way out.

Worsted spinning industry has been under pressure to fall heir to certain ills that plague its customers. The most obvious example of this is that in worsted goods it is said that "an order is only an order when the customer wants the goods." Notwithstanding the fact that the worsted weaver has many ethical customers it is none the less a fact that the market is greatly upset by the "chiselers" who cancel an order for cloth with no more compunction than they would call the news-dealer and stop delivery on the morning paper.

Such tactics have put great pressure on weavers and knitters, and it is not surprising that some have attempted to pass the buck to the spinner. To date, spinners have been fairly successful in avoiding such pit-falls, the most serious dereliction in this line being the granting of rebates at times by certain spinners of knitting yarns. In other words, if the spinner sells 50,000 lb. and the price drops 5c. per lb. when only 20,000 lb. has been delivered the spinner gives the customer the lower price on the remaining 30,000 lb. If there is sound economics in such plans under the present set-up no one has been able to discover it. Fortunately, this practice has not been very widespread in knitting yarns, and weaving yarns have been quite clear. The only thing necessary to make conditions much worse is to start taking over all the customers' troubles. There are some gaudy schemes rumored in this connection. Upon analysis they reveal themselves as highly technical means of giving away money and running an industry into the ground.

The merchandising discussion which appears regularly on this page considers various branches of the textile industry from week to week. It analyzes significant marketing trends or developments in those branches. While it covers current movements, its conclusions concern potential future significance of those movements, rather than the effect of temporary fluctuations in trade sentiment.

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YARNS AND RAW MATERIALS

TEXTILE WORLD ANALYST

◆Cotton Yarns Resist Low Offers

FURTHER weakness in cotton has checked sales development in cotton yarns. The week before last had shown some indications of life, promising well for deliveries and specifications. However, the market is once more at a standstill. The only activity is resumption of efforts to secure further concessions in prices. One of the counts which is a special target for price shooting is 20s-2 warps. Offers of 13c. are being made for as much as 50,000 lb. The market has shown decided resistance, which in itself can certainly be regarded as encouraging. The lowest price quoted on 20s-2 is 14c., and dealers and spinners refuse to consider anything lower.

While there were a number of factors who had admitted the possibility of cotton finding a lower price level in line with other raw materials, there is still a general conviction among sellers that yarn prices have reached a point where they are no longer attractive to either spinners or dealers. Recent prices have offered no profit to spinners, even at present cotton costs, a condition which cannot continue indefinitely. The trade maintains that it is a short-sighted policy on the part of buyers to press continually for lower yarn prices. Such a course it is argued merely cheapens sellers' own products and jeopardizes their own chances for a profit, while at the same time forces spinners to continue to operate at a loss and endangers their source of supply where a contract is involved.

Weaving yarns are especially quiet. Such counts as 30s-2 warps have practically no demand, and dealers say they could not sell this yarn if they were to shade the prevailing price of 18c.; other counts are also quiet with 8s-2 skeins and tubes, white yarn, at 12c.; 12s-2 at 13c.; the lowest price on 8s single skeins is 2c.

Knitting yarns find some scattered interest. Specifications are said to be coming along in rather surprising fashion, especially on heavyweight underwear yarns. Several mills which have been inactive lately, are now taking in yarns. Lightweight underwear is very quiet, with some mills reported closed. Specifications for these yarns have been slow. Prices for carded ramespun seem to have settled around 11½ to 12c. for 10s with 18s at 14 to 14½c.; 30s tying-in at 17c., with average grade at 18 to 19c.

Combed yarns find business scattered with prices inclined to the low side of previous quotations, although here and there further reductions are reported. Here again the volume of business is so small that it is difficult to establish values, with 18s single around 19 to 20c. and 30s at 23 to 25c. Mercerized yarns find new business limited, but specifications are still coming in so that the situation is not entirely unsatisfactory. With warmer weather in sight, the outlook is called promising. Prices are holding fairly well considering conditions.

◆Sentiment in Cotton Improves

RATHER an improved sentiment has been noted in the cotton market here during the week, due, apparently, to a more hopeful view of the legislative outlook. The action of the Senate Finance Committee in favorably reporting a compromise tax bill, and of the House Ways and Means Committee in deciding to report unfavorably the bonus bill, had an encouraging effect which was reflected by rallies of about ½c. from the low levels reached early in the month. Demand tapered off on the advance to 5.90 for July, however, and the market became quieter with later fluctuations rather irregular. The uncertainties still before the bill to balance the budget and some other proposed measures, no doubt helped to check buying after readjustments of the technical position, while the trade found little in the weather and crop news or in general trade advices to encourage a more aggressive attitude on the buying side of the market.

Except for low temperatures retarding germination in some sections, the crop appears to be making favorable progress. There has been sufficient rain to relieve dry soil conditions except in some sections of the Southeast, while fair progress has been reported with farm work and according to some

(Continued on page 59)

Market Briefs

Cotton: Up from recent bottom, but not strong.
Cotton Yarns: Dull market; prices nominal.
Cotton Goods: Gray goods quiet after small rebound from new lows.
Wool: Prices nominal, but situation is weak.
Worsted Yarns: Unsettled by price rumors but spinners seek stability.
Woolen Goods: Sacrifice on spot suitings; fall lines slow.
Silk: Reflects Japanese dumping; new lows set.
Silk Yarns: Spinners get inquiries; thrown yarns quiet.
Silk Goods: Good call for printed chiffons; prices uncertain.
Rayon: Better tone; light demand.
Knit Goods: Bathing-suits continue backward; fair demand for summer sweaters. Women's mesh underwear active, but other lines slow. Price reductions add uncertainty to mesh hosiery outlook. Moderate call for plain-full-fashioned.

◆Worsted Yarns Find Hopeful Signs

ALTHOUGH there have been no recent marked developments in worsted yarn buying, many factors are inclined to believe that signs point to improved conditions. Demand for yarn is still lacking, and there is still price-cutting without any real reason. Concessions are offered on weaving yarns, until it is almost impossible to say what the market is for them.

The situation in men's wear and dress goods lines shows no favorable development as a result of this price slashing. Certain large and representative spinners have come to realize the foolishness of pursuing such a policy, which only upsets buyers ideas. There are signs that a saner attitude is going to be assumed. Prices have now reached levels that preclude any possibility of profit. It is necessary for spinners to make a profit, as well as for their customers, if they hope to continue in business. Hints are already heard of a serious effort along the lines of constructive action in order to establish sanity and confidence in the industry.

Several large spinners are now refusing to quote yarn prices unless they are reasonably assured the customer means business and is actually desirous to operate on a definite basis. As an indication of the absurdity of the existing condition and the profits needlessly sacrificed by spinners without any firm sales policy or "backbone," an actual case is cited. A certain buyer had been paying $1.30 for his yarn; the spinner selling him found it necessary to advance his price to $1.35. This the buyer paid because he needed this yarn. The next day a competitor came along with a price 10 to 12c. below the advanced price. He could easily have sold on a par with the previous price and thus maintained a profitable basis, as well as confidence in an established market. Perhaps real information as to conditions in the market which a well organized and maintained meeting place could offer, would avoid these wasteful practices.

An encouraging feature is the fact Government wool-distributing channels are determined to maintain wool values. Recent efforts made by large spinners to place orders for wools at a price below the prevailing levels, have been met with a firm refusal. This naturally tends to confirm a stability, which should be reflected in yarn prices and thus lend the trade greater confidence.

Demand for yarns for swim suits has not yet approached any real volume, although conditions are more favorable. It is stated some retailers claim they do not yet know what styles will be

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followed in women's lines, but already these lines are being offered in the retail field and doubts should vanish. As a consequence, swim suit business should gradually pick up. Prices continue erratic, with single 18s slub-dyed at 85 to 87½c. On 2-20s Bradford knitting yarns, 65 to 67½c. seems to be the rule, although some still ask 70c.

◆Wool Stagnant Below Pre-War Level

THE wool market continues in a condition of semi-stagnation. Constructive rather than destructive factors, however, are operating quietly and a little later on the wool position is likely to settle upon a basis that will in the main be satisfactory to all parties concerned. It is a difficult market to summarize under prevailing conditions, featured by a complex of opposing interests.

Wools are quoted in the Boston market on the lowest basis for many years, but prices are entirely nominal and less reliable as to actual conditions East or West than quotations on corn, wheat, cotton and other raw materials, which represent actual daily transactions. Prices showed a downward trend throughout April and closed at the low for the month which was also well below the same month for 1913 and 1914.

The market is receiving little encouragement from manufacturers whose attention at the moment is directed more to unsettlement in the goods market than to what growers are willing to accept in the West or its figures at which holders of wool are willing to sell spot material. Mill stocks of raw domestic wool are believed smaller than at any time this year.

The wool consumption report for March was better than expected. Consumption of domestic and foreign three-eighths-blood wools showed a gain over February, an increase of 250,000 lb. in domestic and a gain of 141,000 lb. in foreign. Fine foreign wool also made a gain for the month of 89,000 lb. Unfavorable feature of the report was a decrease of 3,289,000 lb. of fine domestic wool.

The executive committee of the National Wool Marketing Corp. following a protracted conference in Boston and a meeting in Washington with the loan division of the Federal Farm Board announced that "The National is prepared to handle the entire wool production of the United States for 1932." The purpose of this manifesto, it is stated, was to strengthen confidence in the general soundness of the raw wool situation and to correct the apprehension felt in various circles that the cooperative might not be able to handle any large proportion of the 1932 clip, and might even find itself forced to sell its 1931 carryover at substantial price recessions.

◆Rags, Wastes, Noils Await Mill Action

RAGS and reworks are still in a dull period and until there is some real action in the goods market "shoddy" manufacturers can do little else than await some favorable turn in events. The pressure for lower goods may turn out favorably for rags and reworks. Little activity is noted in fine light merinos, light hoods or the white stocks which have hitherto been leaders.

Wool waste dealers are strongly of the impression that the woolen weaving division is shaping up for better business and that when this becomes more of a certainty there is likely to be a larger and steadier demand for the many white and colored materials which at the present time are attractively priced as related to raw wool values. Fine white worsted threads are on a firm basis of 42c. for good material and this price figures out at 52% on the average price of material in 1926 while the average price of fine wool at this time is 45% of the 1926 average.

The strong position of merino noils is attributed by most dealers less to actual mill demand than to limited supplies coming out of the combing establishments.

◆Rayon Price Tone Stronger

THE rayon market tone held firm this week, despite a continued downward trend in buying. Sentiment, indeed, was slightly stronger, thanks to the recent utterance of an important producer, emphasizing the need for yarn stability, to arrest the price break in the knitted rayon fabrics market. Producers do not look for any pronounced rally in demand before summer, but are watching stocks closely with the aim of further curtailment, if necessary. At present, the industry operates about 60% of capacity. There is less mention of the shutdown possibility as producers feel they still have a margin of curtailment they could utilize before taking the ultimate step of closing plants.

The most significant feature at the moment is the strong cooperative spirit among rayon companies. This feeling has helped price tone and has served to offset the price pressure recently evident on the part of certain buyers. Consuming groups are coming more and more to the belief that rayon prices are stable.

◆Active Inquiries For Spun Silk

WEAVERS and knitters have begun to show some interest in spun silk and while this has not passed the inquiry stage to any extent, it has brought encouragement to spinners. There was considerable demand for quotations this week, together with moderate spot buying. Manufacturers of knitted outerwear are in active production of summer sweaters, and spun silk is an important yarn in these garments this year; the contracts from these mills eased off noticeably during recent weeks, but the approach of the summer has made spun silk houses confident that a turn is near.

Thrown yarns continue sluggish and the prospects are not encouraging. Production of yarns is down now to between 20 and 25% of capacity and further curtailment is likely if demand does not improve. Throwsters get only the most meager piecemeal orders from weavers, and the demand from hosiery mills is very little better. Hosiery knitters have increased curtailment of both mesh and plain full-fashioned, resulting in a drop in orders from this industry. Prices are unchanged.

◆Japanese Dumping Weakens Silk Here

FORCED to realize on their accumulated stocks of raw silk, numerous Japanese reelers dumped substantial quantities on the Yokohama market "for what they would bring" this week, and the auction had the obvious effect of making a bad situation worse in New York. Prices of 13/15s fell 10c. and prices of 20/22s fell from 5 to 10c.; in some instances the drop set all-time low records. The situation in New York is, if anything, slightly darker than it has been. Importers got the minimum of buyer reaction to the reduction; indeed, the feeling grows among importers that the best thing for stimulating demand would be a rise in prices. While it is agreed that curtailment in both broad-silk and hosiery output has drastically cut the needs of these manufacturers, nevertheless they buy even less than they actually need due to the natural hesitancy of buying in a falling market. A slight advance in raw silk prices would be a tonic factor in helping movement of stocks, it is believed.

Early reports state that the new Japanese silk crop will be 12% less than last season, which does not bring much encouragement to the importers. These firms point out that consumer demand here has dropped to a far greater extent.

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FABRIC MARKET REPORTS

TEXTILE WORLD ANALYST

◆Gray Cottons Take Deep Dip

THE cotton goods market has gone down into the depths again, but seems on the verge of a recovery which will pull it out. Late last week when cotton sagged to new lows and cloth buying was dull, print cloths were sold on a basis of 3c. flat for 38½-in., 64x60s. This is the lowest price for over 34 years and is regarded as meaning an even larger loss to those mills accepting it than the low prices of last fall. This time it appears to be the result of temporary, limited pressure. Only spot or nearby goods were sold at such a figure, though it has had such an effect on sentiment that prices for goods on the nearer months have been hammered down very close to that basis.

The many-times-mentioned curtailment program is going into practice and the probability is that production for the remaining spring and summer months will be about halved. Such a schedule should not be given up until there is clear evidence that distribution warrants an increase. Stocks have been continually on the decrease for many months, but a small stock today seems to be a heavier burden than a large stock two years ago. The need for turning production into cash is keen, but it would be better for the industry if mills would suffer through shut down than through sacrificing their product. If consumer demand is partly satisfied by goods at ruinous prices, the market position is not so good as though consumers were allowed to go hungry for a time and thus build up a potential need for goods which could later be capitalized in profitable business. Prices which waver before the slightest breeze are not calculated to build up the confidence which is a prerequisite of improvement.

It is pointed out that duck manufacturers after a period of suffering have desisted from going out after small business at cut prices and since the change they have been moving on a much more stable keel. There has not yet been an expansion in their volume, but that is largely outside of their control. However, the situation is better tuned to respond to any improvement if and when that ultimately comes.

Fine and fancy cottons have not benefited from any sort of a broad spring movement. Some sellers had hoped that selling would be distributed through the spring months for summer retail selling, but there is no evidence that this is the case. Sales are small and on strictly hand-to-mouth basis. A movement of lawns is reported this week, but voiles are completely stagnant. Rayon fabrics are quiet.

There has been fair movement of cotton flannels. Mottled goods for interlinings have been in demand. Glove makers who use flannel have been rather quiet recently and it is understood that they have sufficient material to meet their needs for a time.

Sheets and pillow cases have been a disappointing item in retailers' May white sales. Scant reordering has been current and mill curtailment is in order on the likelihood of a low rate of replacement from retailers for some time to come.

◆Broadsilks Active But Prices Weaken

THERE was moderate activity in the broadsilk market this week, and cutters-up and retailers placed a fair-sized quantity of spot orders. Printed summerweight chiffons were in the lead, demand being chiefly for floral and geometric designs. Cutters were particularly partial toward well-covered patterns and close effects; it is notable that grounds are very secondary in importance in the most sought-for fabrics this season. Color preference leaned to black-and-white, navy-and-white and other light shades on dark grounds.

Price position was unsatisfactory both as regards retail and cutter movement. Despite all the talk of curtailment there is still a very unhealthy quantity of printed summer sheers available, which has had a depressing effect on prices. Manufacturers of fabrics complain that they are able to make a profit only for the first couple of weeks after a new design appears.

Georgette situation is fair; buying is limited to occasional spot orders, but some contracts are of good size. The general broadsilk outlook is uncertain, as the weather element becomes more important each day. Neither retailers or the dress trade have much stock on hand, and a spell of early summer weather would help materially to spur fabrics, it is believed.

▸Courtaulds, Canada, Gives Quality Control Privilege to 8 Mills

Courtaulds (Canada) Ltd., of Cornwall, Ont., and Toronto, Ont., has granted rights to the following textile mills to manufacture rayon underwear for men under the Viscose Co. quality control plan, recently adopted by the Canadian affiliated company: York Knitting Mills, Toronto; Mercury Mills, Hamilton; Eaton Knitting Co., Hamilton, Ont.; J. R. Moodie Co. Ltd., Hamilton, Ont.; Grover Knitting Mills, Montreal; The Canadian Kickernick Co., Ontario Silknit Ltd. and Beaunit Mills, Ltd., all of Toronto, Ont.

◆Plaids Favored in Fall Wool Goods

THE outlook in the wool goods market continued a very mixed proposition this week, with lightweights and other summer goods moving at sacrifice levels in some quarters and fall coverage restricted for the most part to active sampling. There is still a fair quantity of summer suitings available and some mills are so pressed for funds, they offer these fabrics at unprofitable prices. Buyers placing immediate business are apt to haggle over quotations; numerous of the leading Fourth Avenue agents are putting up resistance, which has helped somewhat to prevent a general break.

Current commitments are largely for light colors, in the men's suitings, and weavers grow more confident as regards the fall chances for semi-staples. Chain weaves are the most popular of the fall line in plain suitings; buyers seem to be leaning away from the usual type of twills. Preliminary business from tailors gives emphasis to stripes. Glen plaids are favored by both tailors and clothing houses for fall. Future contracts as a whole are very backward, the weather having slowed up retail movement of summer apparel. Weavers believe that, with retail stocks of lightweights so small, any consumer spurt would soon clear the shelves and encourage a call for the new fall heavyweight fabrics.

The sentiment for shutdowns grows daily; mills are having a hard fight and there are indications that some firms which join the general closing this summer may not reopen.

▸Textile Designers Form New Association

An organization of textile designers for the purpose of furthering the interests of the American textile designing industry was formed last week at a meeting held at the New York headquarters of the Silk Association of America, Inc. Robert Schey was elected chairman of the executive committee. Other committee members are Anton Grulich; H. Schweizer; Paul Reiman, Original Designing Co.; William H. Arlt; R. D. Worth, Funston Worth, Inc.; Frank R. Liger, Kipp and Liger. Ramsay Peugnet was elected secretary of the group.

A code of ethics for the designing industry, by-laws, and recommendations for the elimination of trade abuses will be presented by the executive committee at the next meeting of the organization which is scheduled for May 20. A name for the newly formed organization will also be chosen at that meeting.

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CHATTANOOGA, TENN.

KNIT GOODS MARKETS

TEXTILE WORLD ANALYST

◆Bathing-Suits Move Hesitantly

THE long-awaited rush for swimsuits still showed no signs of materializing this week, and manufacturers generally reported a hesitant market condition. Some of the large companies have substantial business on the books and there is a sneaking disposition among the more daring distributors to reorder. But these are exceptional cases. The backward weather deters retailers and jobbers from contracting, and it grows more evident each day that the bulk of the buying will come right on the very edge of retail demand. Stores seem determined not to buy until they are assured the suits will sell within twenty-four hours of delivery.

The trend among men bathers in certain parts of the country to wear trunks only is causing concern among swimsuit houses, though why they should worry is not quite clear. One enterprising firm which has exploited this trend to push new types of suits that have removable tops, reports a lively business on that line. Current swimsuit demand is moderate but fairly steady. Stocks in mills are slightly larger, and some factors now doubt whether the situation will be so tight as to induce distributors to pay premiums, as was first predicted.

Lightweight sweaters sell unevenly; small-sized orders for men's and women's garments are being placed, but the real seasonal business has not developed. Heavyweight sweaters suffer from the generally backward condition, and a minimum of fall orders has been placed.

◆Summer Underwear Lines Move Slowly

UNDERWEAR manufacturers were openly discouraged by the selling situation this week. With April turnover only fairly good, May so far has been signally backward, particularly in men's lines. The style element appears to be winning orders for women's mesh undergarments, in both silk and rayon, and prices are strong enough to afford a fair margin. At the men's end, however, the demand is very backward. Worth Street agents this week said "they couldn't sell a suit," and while this can be discounted somewhat, there is no question that the volume of business being placed in men's garments is abnormally low, even for a difficult year.

Such orders as do arrive are distributed fairly equally among the different lines. Cotton athletic shirts and shorts are a leader as usual, but the call for lightweight ribbed unionsuits is holding up. The last-named line, while believed to be at the end of its season, shows activity in various parts of the country.

Retailers have very light stocks of underwear on hand, but they complain that even these stocks are not selling, and little increase in distributor demand can be expected until the ultimate consumer shows more interest.

The sluggish condition of all lightweights has served to push the heavyweight underwear season farther off, and now it is problematical as to when lines will begin moving. Conditions in recent weeks certainly confirmed the wisdom of part of the industry in withdrawing their merchandise until June.

◆Summer May Steady Mesh Hosiery Prices

MESH hosiery manufacturers are divided on the question of whether the present weakness in prices of these lines means the beginning of a general break. Numerous companies have announced reductions in mesh prices during the last ten days, but it is argued that these reductions were forced by parallel cuts previously made by competitors under liquidation pressure. Part of the hosiery group—and indeed the majority—takes the view that the current weakness is due entirely to liquidations and that prices will rally again, once these stocks, none very large, have been assimilated. The same group points out that consumer demand for mesh holds up firmly, and should normally increase once the weather gets warm. Others, however, are less confident and urge caution in producing mesh lines.

Present call for mesh hosiery is limited to small orders but there are plenty of these around; the call chiefly is for lines to retail at $1.35 to $1.50. The sewn mesh, selling retail at $1.00 to $1.25 was less active this week which is attributed to the unfavorable weather.

Plain full-fashioned is in somewhat better position, though here too demand is less than it should be for May. Curtailment in mills has had the effect of reducing stocks sufficiently to improve the price tone.

Half-hose situation is very unsatisfactory. Orders are plentiful, but price pressure is acute and knitters are lucky when they can trade dollars. Much of the current half-hose business is being taken at a loss. Interest leans chiefly to the cottons, the rayons and the low-priced mixtures, and extremely low-priced lines are the most active. The tendency toward cheaper merchandise is so acute, one factor remarked, that the sox retailing at 25c. and 35c. now are regarded as in the medium-price range.

◆Raw Cotton Report

(Continued from page 53)

advices good moisture and weather conditions are rapidly offsetting the late start in many sections of the southern half of the belt. A wet May, would, of course, be considered unfavorable but to date, rainfall has not been excessive in the opinion of some authorities and farmers have been able to keep their crops relatively free of grass. Fertilizer tag sales in the South for April made rather a better showing in comparison with last year than they did in March. It is probable that this reflected in part the crop production loans which became available during the latter part of March, but all indications still point to a marked decrease in the use of commercial fertilizer. In this connection the New York Cotton Exchange Service says it becomes evident that total sales for the season would be about 40% below last season and 58% below two seasons ago when they were practically the largest on record.

According to reports from College Station, Texas, the emergence of weevils from hibernation at that point up to May 1 amounted to 6.42% compared with 6.16% last year, and 0.02% in 1930. This is the heaviest percentage emergence on record since 1925, and it is this threat of weevil damage combined with probably inadequate fertilization that constitutes the chief drawback to coming crop prospects. Nothing more conclusive has developed with reference to acreage prospects, with estimates of the reduction still ranging from 7½ to about 16%.

No change of importance has been reported in the spot situation. Demand has been quiet but little cotton has been offering for sale and the basis has held steady to firm. The hedging of raw material or goods noted on the decline early in the month, seems to have subsided, and the market as a whole appears inclined to await developments.

◆Cotton Waste Prices Unchanged

THE further slight decline in raw cotton has had relatively little effect on cotton waste prices. Spinnable wastes continue to be the only items that interest buyers and the scarcity of peeler comber has continued to such an extent that prices are actually above raw cotton quotations.

The balance of the waste market has been so dull and prices so low that dealers have not changed asking prices, which remain nominal. Buyers are not interested and cutting prices would have no effect on sales.

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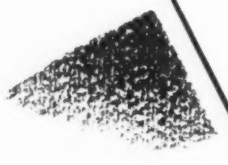

◆ Associated Rayon Reports 1931 Profit

A NET profit of $108,531 for the year ended Dec. 31, 1931, as against a net of $795,529, the year preceding, is reported by the Associated Rayon Corp.

The aggregate approximate depreciation in the value of investments of the company during the last year was $1,230,000. The aggregate value of the company's investments based on available market quotations, according to the financial statement, was approximately $3,900,000, or less than the book value by approximately $43,526,000.

Dr. E. Bluethgen, president of Associated, in a letter to stockholders, states that "due to the continuance and further accentuation of the world-wide economic depression, the income realized during 1931 by your company from dividends on investments was very small. The interest receivable on the note which your company holds and the income on its other investments are sufficient, at the present rate, to cover the interest on your company's outstanding funded debt." He continued:

"It can be stated that a gratifying volume of business has been obtained during 1931 by the various rayon producing companies in which your company is interested, but the extremely low prices of all textile commodities and the resultant low prices for synthetic fibers preclude substantial profits at present."

Harmony May Liquidate

A special meeting of stockholders of Harmony Mills, Cohoes, N. Y., has been called to be held at 1 Federal St., Boston, Mass., May 24, to consider the proposition liquidating the company's assets and retiring from the manufacturing business.

Mercury Mills Loss

The annual statement of Mercury Mills Ltd., Hamilton, Ont., for the year ended Dec. 31, 1931, after decided reduction in inventory, heavy depreciation charges and the cost of plant removals, shows a net loss of $508,085, for the year. During the year, the management deemed it advisable, owing to conditions prevailing in the industry, to concentrate manufacturing activities at Hamilton, to close down the Oxford Knitting Mills, Woodstock, Ont., and to confine operations of the mill in Listowel, Ont., to yarn spinning and yarn dyeing.

Financial Briefs

The Civic Finance Committee of the Victoria, B. C., city council recently granted the British Columbia Worsted Mills Ltd., an extension of two months to meet payment of mortgage interest to the city. The interest amounting to $3,125, was due April 1.

Regent Knitting Mills Ltd., St. Jerome, Que., and Guelph, Ont., in its annual statement for the year 1931, shows operating profit of $19,958, against $61,653 for the year 1930. Bond and other interest totalled $54,064, depreciation $75,000 and bad debt reserves $22,500, making a net loss of $131,605 against a loss of $101,711 a year ago. Current assets are placed at $887,441, and current liabilities at $451,381, leaving net working capital at $436,060.

Financial statement of Montreal Cottons Ltd., Valleyfield, Que., for the fiscal year ended Dec. 31, 1931, reveals an operating loss of $246,840, which is reduced to $118,787, after the addition of other income of $128,053. Current assets total $2,049,074, and current liabilities, $959,648, leaving net working capital at $1,089,326.

Annual report of Ontario Silknit, Ltd., 590 King St. W., Toronto, Ont., and subsidiaries, for 1931, reveals, a net profit of approximately 63c. a share on the common stock after allowing for dividends on the cumulative preferred shares outstanding and providing for depreciation and taxes, compared with a deficit of 50c. a share in 1930.

▶ New Bedford Mill Stocks

(Sanford & Kelley, New Bedford)

	Bid	Asked
Acushnet Mill	1	..
Associated Textile	..	8
Associated Textile, 6% pfd	..	10
Beacon Mfg., com	95	..
Beacon Mfg., pfd	76	79
Booth Mfg. Co., com	1	3½
Booth Mfg. Co., pfd	14	17
City Mfg. Co	6	..
Dartmouth Mfg. Co., com	..	22½
Dartmouth Mfg. Co., pfd	75	..
General Cotton Co	1	1½
Gosnold Mill, com	14	17
Gosnold Mill, pfd	..	47½
Gosnold Mill Notes	84	..
Grinnell Mfg. Co	20	..
Hathaway Mfg. Co	31	33
Holmes Mfg. Co., pfd	..	10
Kilburn Mill	12½	..
Nashawena Mills	10	11½
Neild Mill	14	..
Nonquitt Mills	1	2
Pierce Mill	70	..
Potomska Mills	30	32
Quissett Mills, com	26	30
Soule Mill	43	45
Taber Mill	4½	5½
Wamsutta Mills	4½	..

▶ Fall River Mill Stocks

(G. M. Haffards & Co., Fall River)

	Bid	Asked
Algonquin Printing Co	150	160
Barnard Mfg. Co	..	6
Berkshire (com.)	1½	2
Berkshire (pfd.)	..	10
Bourne Mills	..	12
Border City Mfg. Co	..	3½
Charlton Mills	..	40
Davol Mills	1	2
General Cotton	1	2
Luther Mfg. Co	..	57
Merchant Mill	..	..
Narragansett Mills	..	2
Pepperell Mfg	27	30
Pilgrim Mills	..	25
Richard Borden Mfg. Co	1	..
Sagamore Mfg. Co	..	35
Shove Mills	..	..
Stafford Mills	..	1
Stevens Mfg. Co. (pfd.)	7	12

▶ Southern Mill Stocks

(R. S. Dickson & Co., Charlotte, N. C.)

	Bid	Asked
Acme Spinning Co	20	34
American Yarn & Processing Co	..	21
Chadwick Hoskins Co. (Par $25)	4	8
Chadwick-Hoskins Co., 8% pfd	55	65
Crescent Spinning Co	15	27
Durham Hosiery, 6% pfd	14	17
Erwin Cotton Mills Co., 6%, pfd	88	94
Flint Mfg. Co	..	45
Flint Mfg. Co., 7%, pfd	..	66
Hanes, P. H. Knitting Co	..	6
Hanes, P. H. Knitting Co., 7%, pfd	70	80
Linford Mills	19	32
Perfection Spinning Co	23	37
Roanoke Mills, 1st pfd., 7½%	24	34
Rosemary Mfg. Co., pfd., 7½%	52	..
Stowe Spinning Co	..	31
Ware Shoals Mfg. Co	..	80
Ware Shoals Mfg. Co., 7%, pfd	76	85
Winget Yarn Mills Co	..	40
Wicasset Mills Co	105	120
(A. M. Law & Co., Spartanburg, S. C.)		
Avondale Mills, Ala	450	550
Bibb Mfg. Co	60	65
Clifton Mfg. Co	47	53
D. E. Converse Co	40	45
Dunean Mills	..	60
Dunean Mills, pfd	..	85
Gossett Mills	..	25
Hunter Mfg. & Com. Co., pfd	..	35
Judson Mills, A pfd	..	70
Judson Mills, B pfd	..	65
Monarch Mills	..	65
Newberry Cotton Mills	50	55
Orr Cotton Mills	..	25
Pacolet Mfg. Co	..	20
Piedmont Mfg. Co	50	56
Riverside & Dan River Mills (Par $25)	4	7
Riverside & Dan River Mills (6%, pfd.)	42	47
Southern Bleachery & Print Works, pfd	..	40
Spartan Mills	..	80
Union-Buffalo Mills, 1st pfd	20	25
Victor-Monaghan Co	..	37

▶ New England Textile Stocks

	Sale	Bid	Asked
Am. Mfg. Co., pfd	50	44	..
Amoskeag	2	2½	2¾
Arlington	10	10	13
Associated Textile	10	..	10
Bates	10	..	7
Berkshire Associates, com.	1½	1½	3
Berkshire Associates, pfd.	40½	10	12
Bigelow-Sanford, com	9½	..	..
Edwards	80½	..	25
Farr Alpaca	15	9	10
Hamilton Woolen	47½	50	55
Hill	7	2	5
Ludlow	48½	32	35
Merrimack, com	3½	3	..
Nashua, com	3¼	..	3
Nashua, pfd	29	..	14
Naumkeag	46	42	44
Newmarket	10	9	12
Otis	45	41	45
Pacific	6	5½	7
Pepperell	34½	25	35
Plymouth Cordage	49	37	40
West Point	35	24	..
York	8½	4	..

▶ Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended May 10.

	High	Low	Last	Ch'ge
Adams Millis	18	16½	18	+1½
*American Thread pfd	2½	2½	2½	....
American Woolen	2¼	2¼	2¼	— ¾
American Woolen, pfd	23¾	19¼	23	+1½
Belding-Heminway	3½	3½	3½	....
*Blumenthal	2½	1½	1½	— ½
Cannon Mills	15½	15½	15½	....
Collins & Aikman	5½	4½	5½	+ ½
Consolidated Textile	¼	¼	¼	....
Duplan Silk	8	8	8	....
Gotham Hosiery	14½	11½	12	— ½
Industrial Rayon	25¼	20¾	22¼	+ ¼
Kayser, Julius	6	5½	6	+ ¼
Kendall, pfd	28½	26½	26½	—2
*May Hosiery, pfd	17⅞	17⅞	17⅞	— ⅛
*Mock Judson	3	3	3	....
Mohawk Carpet	7¾	7	7¼	— ½
Munsingwear	12	12	12	—3
Pacific Mills	6	5½	5½	— ⅜
*Pepperell	25½	25	25	— ⅜
Real Silk Hosiery	4½	3½	4½	+ ¼
*Tuberize	2	1½	1½	....
United Piece Dye Works	7½	7½	7½	....

*Listed on Curb.

Fabric De-Grading May Force Rayon Producers Into Knit Goods Field

THE possibility of concerted action by rayon yarn producers toward manufacture of knitted rayon underwear fabrics, as result of the continued output of inferior merchandise in this market, loomed large this week, as the aftermath of a statement by Hiram S. Rivitz, president of Industrial Rayon Corp., in the *Daily News Record*. Mr. Rivitz assailed the current practice among certain knitters of selling knitted tubular underwear fabrics at 75 c. per lb. on 150 denier pure dye cloth; this figure is the actual selling price of the yarn, and Mr. Rivitz interpreted the below-cost selling of the fabric as a step to force producers to cut their yarn prices.

Asserting emphatically that his company saw "no reason whatever for reducing yarn prices," Mr. Rivitz added that Industrial intends "to maintain the present price indefinitely."

Easily the most significant feature of the statement was the unanimous approval it received among the leading rayon producers of the country. Mr. Rivitz' statement, including the comment that "continuance of the practice of under-selling on fabrics might force yarn manufacturers to enter the knitting field themselves," was wholeheartedly endorsed by Samuel A. Salvage, president of the Viscose Co., Rufus W. Scott, chairman of the executive committee, Tubize Chatillon Corp., S. R. Fuller, Jr., president of the American Glantzstoff Corp. and American Bemberg Corp., and L. A. Yerkes, president of the DuPont Rayon Co.

All denounced the "price depredations" in the knitted rayon fabric field and insisted that "a definite stand was needed to preserve the rayon underwear business." Mr. Yerkes went further than his colleagues in the industry, stating frankly that it would be to the best interests of yarn manufacturers themselves to go into the knitted fabric business rather than to allow the industry "to become entirely demoralized and broken down by the policy of degrading which is being carried on in the manufacture of knitted rayon tubing."

Market observers were doubtful that the attitude of the producers meant any early rush into the fabric business: it was pointed out that closer tie-up between yarn seller and fabric knitter, with a view to setting quality standards, could be effected in various ways. One method suggested was more definite affiliations between the producer and the individual fabric mill which is the best customer of each company. However, it also is believed that the rayon producers are ready to take the extreme step of actually manufacturing the fabric themselves, similar to the operations started last year by Industrial, if they are once fully satisfied that there is no other way out.

The disappointing results so far, of the recent negotiations to standardize rayon underwear fabrics had made for a feeling akin to disgust among the yarn houses, and they are not very hopeful of relief from that quarter. Probably the most serious aspect from their point of view, is the definite consumer trend away from knitted rayon underwear; this trend has become quite noticeable in the low-price lines, causing numerous rayon underwear mills to turn to manufacture of knitted rayon outerwear instead.

▸ Textile Symposium at A.S.T.M. Meeting

Committee D-13 on Textile Materials of the American Society for Testing Materials is sponsoring a session of the annual meeting at Atlantic City, N. J., Tuesday afternoon, June 21. Technical papers of wide interest to the textile industry will be presented.

The meeting of D-13 itself will be held in the morning of the same day beginning at 9:30 a.m.

The seven papers which are to be presented follow:

A Machine Test on the Durability of Manila Rope—M. C. Wiley, Navy Dept.

Enzyme Action in the Textile Industries—W. F. Edwards, U. S. Testing Co.

Atmospheric Control in the Textile Industry—R. H. Brown, Parks-Cramer Co.

Asbestos Textiles—G. K. Dillingham, Johns-Manville Corp.

The Structure of Natural and Manufactured Cellulosic Fibers——H. DeW. Smith, A. M. Tenney Associates.

The Suter-Webb Cotton Fiber Duplex Sorter and Resulting Method of Staple and Uniformity Measurements—R. W. Webb, U. S. Dept. of Agriculture.

Colorimeter and Method Employed in Color Testing of Cotton—Dorothy Nickerson, U. S. Dept. of Agriculture.

Dean Harvey, Westinghouse Electric & Mfg. Co., heads the subcommittee having immediate responsibility for securing and reviewing the papers. It is anticipated that an unusually large number of the technical leaders in the industry will be at the session, inasmuch as several years have elapsed since an annual meeting session has been devoted exclusively to textiles.

▸ Alabama Will Graduate Its First Textile Engineers in June

Dedication of the new school of textile engineering at Alabama Polytechnic Institute, Auburn, took place May 6. Prominent textile officials in Alabama and Georgia, together with President M. L. Brittain, of Georgia Tech, and Edward T. Pickard, of Department of Commerce and others took part.

The school was organized by Prof. E. V. Camp in 1929 and the building was ready for occupancy in December, 1930. This year, after steady increase in student enrollment, Auburn will award the first degrees in textile engineering in June. There are 62 students taking the textile engineering course.

▸ Knitting of Non-Run Hosiery Demonstrated

The production of non-run stockings under patents controlled by the Textile Patents Corp., Fidelity-Philadelphia Building, Philadelphia, was demonstrated at Reading, Pa., last week by the Textile Machine Works. The demonstration was made before various officials of the Textile Machine Co., and also the Textile Patents Corp. It included tests as to the ability of the fabric to resist runs. The machine operated was working under mill conditions.

The Schwartz Patent No. 1,470,490, issued in 1923, is controlled by the Textile Patents Corp. Parts for additional machines are now in production for the patent group; and a statement was made to the effect that non-run hosiery produced under this patent will be on the market for the examination of buyers by the first of June. It is expected by officials of the patent group that by that date arrangements will have been completed whereby a number of reputable manufacturers will be making non-run hosiery under a license commercially.

Wm. R. Smith, attorney for the Textile Patents Corp., stated that the corporation has patents pending for various types of knitting machines, not only for the production of hosiery, but also for underwear and outerwear. The great objective of the corporation, Mr. Smith states, is "absolute cooperation in establishing more nearly ideal relations between manufacturers and distributors and their buyers, for the betterment of the knitting industry." Furthermore it is hoped by means of the efforts of the directors of the corporation, including representative manufacturers and merchandisers, to accomplish something in the way of eliminating much unfair competition and undesirable trade practices which have developed to the disadvantage of the entire industry. While it is understood that no licenses have yet been granted and that the definite working plans of the corporation have not been announced, there have been received a large number of inquiries for specific information, which indicates that there exists a keen interest in the new hosiery.

▸ Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended May 7, based upon data compiled by Dept. of Agriculture, follow:

	Week Ended May 7	Total to Date 1932	Total to Date 1931
Domestic	367,500	19,985,000	33,236,000
Foreign	149,000	10,343,000	21,463,000
Total	516,500	30,328,000	54,699,000
IMPORTS AT PRINCIPAL PORTS			
Boston	149,000	11,063,000	21,463,000
Philadelphia	162,000	8,449,000	15,547,000
New York	115,000	10,637,000	20,253,000
Total	426,003	0,149,000	57,463,0000

▸ Lowell Alumni Plan Big Technical Session

Twelve mechanical papers are scheduled for presentation at the four "Talking-Shop" session to be held simultaneously as part of the annual reunion program of the Lowell Textile Institute Alumni Association, to be held on Saturday, May 21, at the institute grounds in Lowell, Mass. The technical hour is only one feature of a program which includes a business meeting, a lunch, a lecture and slow-motion picture on loom operation, and a baseball game between the varsity team and the University of New Hampshire.

The motion picture, which is to be shown through the courtesy of the Crompton & Knowles Loom Works, Worcester, Mass., will offer a slow motion study of shuttle flight, action of the side-slip feeler, variations in operating speeds, bending of picker sticks, and variations in warp tension. Albert Palmer, of Crompton & Knowles, will discuss the motions illustrated.

C. H. Forsaith, president of the association, is general chairman of the technical hour. The chairmen of the various group meetings are as follows: chemistry, C. L. Howarth; wool, S. H. Wheelock; engineering, A. Campbell; cotton, B. Parsons. The papers for which subjects have been definitely selected are as follows: Chemistry—"Research Work," by Dr. L. A. Olney; "Observations on Cloth Carbonizing," by H. W. Leitch; "Impressions on Rayon Situation," by A. K. Johnson. Wool—"Wool and Kindred Fibers," by A. L. Sprague; "New Wool-Finishing Machinery," by H. C. Riggs. Engineering—"Relationship of Management to Operating Engineer," by A. Campbell; "Last Word in Mill-Lighting," by A. E. Wells; "Walen Evenness Tester," by H. W. Russell; "Mule- and Ring-Spun Woolen," by H. S. Sawyer. Cotton—"Variable-Speed Control for Spinning," by C. L. Irwin, of Reeves Pulley Co., assisted by D. W. Clem. In conjunction with the last-mentioned paper, a model of the device will be demonstrated.

In order to make the event as economical as possible in hard times, the annual banquet in the evening is to be eliminated. Several class banquets are being planned, however, and the Omicron Pi Fraternity is to hold its thirtieth annual reunion that evening.

▸ Cotton Quality and Age Indicated by Ultraviolet Rays

Results of investigation to determine whether or not the fluorescent method could be used to differentiate between old and new cotton fibers have been reported recently by A. W. Winne and J. Davis Donovan, of the Maryland State Department of Health. The report states that when various samples of new cotton fibers are examined under the ultraviolet light from a mercury-quartz arc lamp with a Corning glass filter of 3-mm thickness, one immediately notices that the degree of intensity of the violet fluorescence changes with the grade of fiber. This degree of intensity varies from a pale violet in long staple fibers to a deep violet in a low-grade linter; that is, the nearer the seed hull is approached, the deeper the violet fluorescence. The fluorescence of cotton depends on the nature of the fiber, the kind of cellulose, and the natural color of the cotton.

As cotton ages, the fluorescence turns from a violet to an ivory-white or brownish white color, with the probable change of cellulose to oxycellulose. Pure cellulose produces a violet fluorescence, while oxycellulose, on the other hand, gives a strong ivory-white color.

▸ Want Design Protection Just for Textile Industry

Limiting protection against the piracy of designs to the textile industry only is suggested by the Silk Association of America as a practical approach to legislation. Endorsed by Thomas E. Robertson, Commissioner of Patents, William L. Brown, Register of Copyrights, and Karl Fenning, chairman of the joint committee on legislation of the American Bar Association and the American Patent Law Association, this proposal was favorably received by Rep. Sirovich, chairman of the House Committee on Patents at a hearing May 10. Commissioner Robertson suggested that the scope of the proposed bill might be extended to include all flat designs.

The silk association's recommendation is regarded as offering some hope of suppressing a practice that, according to Horace B. Cheney, vice president of Cheney Bros., is destroying the print goods business.

▸ Push Plans for Single Silk Union

Further plans toward the unionization of all silk workers in one labor unit, as a division of the United Textile Workers of America, were formulated this week at a meeting in Paterson, N. J., of the leaders in the new organization known as the American Federation of Silk Workers. The meeting was attended by delegates from the silk centers of New York, New Jersey, Pennsylvania and New England. J. A. Muste, chairman of the Conference for Progressive Labor Action, in an address said that the new union would be ready within six months to call a general strike in the silk industry.

◆

Business News

Eppinger & Russell Co. Move New York Offices

The New York offices of Eppinger & Russell Co., wood preservers, with pressure treating plants at Jacksonville, Fla., and Long Island City, N. Y., are now at 8th Ave. and 14th St. The company, with New York headquarters formerly on Park Place, has been in business since 1878.

C. & K. to Move Much of Providence Plant to Pawtucket

Crompton & Knowles Loom Works has leased the old Anchor Webbing Co. plant in Pawtucket, R. I., and will move the jacquard department of its Providence (R. I.) plant to that city. The Providence plant will be dismantled and manufacture of loom parts transferred to Worcester, where it will be concentrated in the company's principal plant.

Farval Corp. Formed to Manufacture Lubrication System

The Farval Corp., Cleveland, Ohio, has recently acquired the manufacturing and sales rights of the Farval centralized system of lubrication. This equipment was formerly manufactured by Lubrication Devices, Inc., Battle Creek, Mich. The officials of the company include Howard Dingle, president; W. W. Clark, vice-president; H. C. Robinson, treasurer; A. C. Blair, secretary. A. J. Jennings, formerly vice-president of Lubrication Devices, Inc., is general sales manager of the Farval Corp. The general sales and manufacturing facilities for the Farval lubrication system are now located at Cleveland. Distribution of Farval equipment for the central industrial section of the country is being handled by the Dingle-Clark Co., with offices in Cleveland, Cincinnati, Pittsburgh and Philadelphia. The Farval system provides the positive delivery at high pressure of a measured quantity of any type of lubricant to any number of bearings from one central pumping station.

National Oil Products to Serve Customers by Industries

Charles P. Gulick, president of the National Oil Products Co., Harrison, N. J., announces a complete reorganization of Nopco personnel and policies effective May 2. The company will hereafter serve its customers by industries rather than by territorial locations, and department managers have been named. Branch offices in Boston, Chicago and San Francisco will be maintained.

The heads of the various departments are: G. D. Davis, general sales manager; O. E. Lohrke, manager paint, oil and metallic soaps division; Dr. C. I. Post, manager tanning oil division; T. A. Printon, manager textile oil division; L. D. Grupelli, manager technical sales promotional department; Leslie M. Brown, director of sales, farm feed division.

The Nopco Laboratories are headed by Ralph Wechsler. Dr. K. T. Steik is research director. L. W. Davis, Dr. D. S. Chamberlin and R. E. Porter are members of the technical service staff.

The company's staff has been further strengthened by the addition of four new men, E. C. Rebholtz, formerly purchasing agent for Klots Throwing Co.; H. F. Leupold, formerly a member of Cheney Bros. laboratories; G. W. Standish and S. S. Mattison.

QUOTATIONS

at close of business, May 11, 1932

Prices cover average qualities unless otherwise stated

Cotton Goods

	May 11	May 4	May 13 1931
PRINT CLOTHS			
27 -in., 64x60, 7.60	2½c.	2½c.	3⅜c.
38½-in., 64x60, 5.35	3½c.	3¼c.	5 c.
39 -in., 68x72, 4.75	3½c.	3½c.	5½c.
39 -in., 72x76, 4.25	4¼c.	4¼c.	6¼c.
39 -in., 80x80, 4.00	4¼c.	4¼c.	6¾c.
BROWN SHEETINGS			
36-in., 56x60, 4.00	3¾–4 c.	4 –4¼c.	5¼c.
36-in., 48x48, 3.00	4¼–4¼c.	4¼c.	5¼c.
37-in., 48x48, 4.00	3¾–3¾c.	3¾–3¾c.	5 c.
PAJAMA CHECKS			
6½-in., 72x80, 4.70	4¼c.	4¼c.	6¼–6¼c.
6 -in., 64x60, 5.75	4 c.	4 c	4¾–5 c.
MISCELLANEOUS			
Drills, 37-in., 3 yd..	4¼c.	4¼c.	6¼c.
Denims, 2.20	9¼c.	9¼c.	12 c.
Tickings, 8 oz.	11 c.	11 c.	15½c.
Standard prints	6¼c.	6¼c.	7¼c.
Eastern staple ginghams, 27-in.	6 c.	6 c.	8 c.

Cotton Waste

Peeler comber	6 – 6¼
Peeler strips	5¼ – 5¾
Sak. comber	5 – 5¼
Choice willowed fly	2¾ – 3
Choice willowed picker	2 – 2¾
Sak strips	6¾ – 7
Linters (mill run	1¾ – 2¼
White spooler (single)	3¾ – 4¼

Cotton Yarn

CARDED (Average Quality)

Double Carded 2c.—4c., higher according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

4s to 8s	$0.12	22s	$0.15
10s	– .12½	24s	– .15½
12s	– .13	26s	– .16½
16s	– .13½	30s	– .18
20s	– .14	40s ex. qual	– .25

TWO-PLY SKEINS AND TUBES

8s-2	$0.12– .12½	26s-2	$0.17
10s-2	– .13	30s-2	18– .18½
12s-2	13– .13½	36s-2	– .23
14s-2	– .13½	40s-2	– .24
16s-2	– .14	49s-hi.brk	– .26
20s-2	14– .14½	50s-2	– .31
24s-2	– .16	6ps-2	– .33

SINGLE WARPS

10s	$0.12½	24s	$0.16
12s	– .12¾	26s	– .17
14s	– .13	30s	– .18½
16s	– .13½	40s ex. qual	– .25
20s	14– .14½		

TWO-PLY WARPS

8s-2	$0.12½	24s-2	$0.16 – .16½
10s-2	– .13	26s-2	17 – .17½
12s-2	– .13	30s-2	18 – .18½
14s-2	– .14	49s-2 ordin.	– .24
16s-2	13½ – .14	50s-2	– .31
20s-2	14 – .14½	60s-2	– .33

8s-3 and 4-ply skeins and tubes; tinged, 11; white, 12; waste, 10½

HOSIERY CONES (Frame Spun)

8s	$0.11 – .11½	22s	$0.15½
10s	.11½– .12	24s	– .16
12s	.12½– .13	26s	– .17
14s	.13 – .13½	30s tying	.17 – .17½
16s	– .13½	30s reg	.18 – .19
18s	.13½– .14½	30s ex.qual.	.19½– .20½
20s	.14 – .14½	40s	– .25

COMBED PEELER (Average Quality)

TWO-PLY — (Knitting Twist) Cones

20s-2	$0.25	60s-2	$0.38 – .39
30s-2	.27 – .28	70s-2	.49 – .50
36s-2	.28 – .29	80s-2	.59 – .60
40s-2	.29 – .30	90s-2	.85• – .87
50s-2	.32 – .33	100s-2	.98 – 1.05

WAR..S, SKEINS AND CONES

TWO-PLY — (Warp Twist)

20s-2	$0.26	60s-2	$0.39 – .40
30s-2	.28 – .29	70s-2	.50 – .51
36s-2	.29 – .30	80s-2	.60 – .61
40s-2	.30 – .31	90s-2	.85 – .90
50s-2	.33 – .34	100s-2	.95 –1.02

SINGLES

12s	$0.18 – .19½	30s	$0.23 –0.25
14s	.19 – .19½	38s	.27½– .28
16s	.19 – .19¾	40s	.29 – .30
18s	.19 – .20	50s	.33 – .34
20s	.20 – .21	60s	.37 – .38
24s	.20 – .21½	70s	.47 – .48
28s	.23 – .24	80s	.57 – .58

MERCERIZED CONES—(Combed, Ungassed)

26s-2	$0.42 –0.44	90s-2	$0.95
30s-2	.43 – .45	100s-2	1.20–1.25
36s-2	.45	120s-2	1.55–1.60
40s-2	.47	30s	.49– .51
45s-2	.48	40s	.54– .56
50s-2	.50 – .52	50s	.60– .62
60s-2	.55 – .57	60s	.65– .68
70s-2	.69	70s	.77– .80
80s-2	.79	80s	.92– .96

Cotton Prices and Statistics

COTTON STATISTICAL DATA

(Fluctuations of Futures)

	Closed May 5	For Week High	For Week Low	Closed May 11	Net Ch'ge
May	5.56	5.79	5.42	5.58	+0.02
June	5.62	5.79	5.57	5.61	—0.01
July	5.68	5.90	5.55	5.67	—0.01
August	5.76	5.92	5.71	5.76	.....
September	5.83	5.99	5.79	5.84	+0.01
October	5.92	6.16	5.79	5.92	.....
November	5.98	6.97	5.94	5.99	+0.01
December	6.05	6.32	5.92	6.07	+0.02
January	6.14	6.37	6.03	6.14	.....
February	6.22	6.39	6.18	6.21	—0.01
March	6.30	6.54	6.18	6.29	—0.01

SPOT FLUCTUATIONS FOR WEEK

(Middling)

	New York	New Orleans	Liverpool
Thursday, May 5	5.70	5.68	4.51
Friday, May 6	5.90	5.85	4.53
Saturday, May 7	5.90	5.81	4.64
Monday, May 9	5.70	5.72	4.59
Tuesday, May 10	5.70	5.08	4.51
Wednesday, May 11	5.75	5.73	4.56

FOREIGN COTTONS

Egyptian Cotton

Alexandria Exchange, May 10.		Change
May, Sak	10.00	—0.86
June Uppers	8.57	—0.95
May-June Shipment c. i. f. Boston (Tariff not included)		
Fully good fair Sak (No. 38)		11.00
Fully good fair to good Uppers (No. 10)		9.25

(By Anderson, Clayton & Co.)

Foreign cottons	F. O. B. New York, Cents
Peruvian Tanguis Strict Middling	16
Peruvian Pima No. 1	15½
Peruvian Moderate Rough	10
Peruvian Full Rough	16
China Tientsin No. 1	8½
India Rough	7 to10
India Smooth	6½ to 7½

(By Bruns-Nordeman Co.)

MOVEMENT INTO SIGHT

	This Year	Last Year
Week	50,000	71,000
Season	14,035,000	12,550,000

WORLD VISIBLE SUPPLY

	May 6	One Year Ago
Interior towns and ports of U.S.*	5,637,000	4,485,000
Afloat to and at ports of Europe	1,388,000	1,705,000
Afloat to and at ports of Orient..	978,000	469,000
Total	8,003,000	6,659,000
Change during week	Decrease 213,000	Decrease 159,000

*Includes afloat to New York.

FORWARDINGS TO MILLS OF WORLD

	This Year Week	This Year Season	Last Year Week	Last Year Season
No. States, U.S.	8,000	679,000	15,000	762,000
So. States, U.S.	43,000	3,743,000	60,000	3,316,000
Total U.S.	51,000	4,422,000	75,000	4,078,000
Great Britain	35,000	1,070,000	22,000	726,000
Continent	64,000	2,879,000	67,000	2,832,000
Orient	118,000	2,673,000	63,000	1,099,000
Canada and other America	3,000	155,000	3,000	187,000
Total foreign countries	220,000	6,777,000	155,000	4,844,000
World total	271,000	11,199,000	230,000	8,922,000

EXPORTS FROM UNITED STATES

Total	150,000	‡7,512,000	90,000	6,044,000

AVERAGE PRICE MAY-JUNE SHIPMENT HARD WESTERN COTTON

	F.o.b. New England Middling	St. Middling
1 —in.	7¼–7¾c.	7¾– 8c.
1⅛-in.	7¾–8c.	8¼–8¾c.
1 —in.	8¼–8¾c.	8¾–9c.
1¼-in.	10¼–11c.	11¼–12c.

Based on New York, July, 5.63.

SPOR FLUCTUATIONS AND STOCKS

Markets	May 4	May 11	Sales	This Week	Last Year
Galveston	5.65	5.70	3,229	641,323	546,560
New Orleans	5.83	5.73	4,348	1,041,250	707,606
Mobile	5.35	5.35	159	169,868	250,705
Savannah	5.59	5.67	3,586	248,648	361,044
Norfolk	5.65	5.65	17	54,078	79,070
New York	5.65	5.75	6,296	204,949	225,932
Augusta	5.63	5.50	1,168	111,660	78,757
Memphis	5.05	5.05	7,566	354,531	216,653
St. Louis	5.10	5.00	.....	.....	5,982
Houston	5.60	5.65	2,618	1,303,594	979,929
Dallas	5.15	5.25	5,614	19,559	8,539

DIFFERENCES ON AND OFF MIDDLING WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M.F	0.60†	.75†	0.65†	0.63†	0.65†
S.G.M	.45†	.50†	.55†	.56†	.52†
G.M	.35†	.40†	.40†	.38†	.38†
S.M	.25*	.20†	.25†	.19†	.22†
S.L.M	.25*	.20*	.25*	.25*	.23*
L.M	.50*	.50*	.50*	.63*	.50*
S.G.O.**	.85*	.75*	.85*	.88*	.82*
G.O	1.00*	1.00*	1.15*	1.25*	1.12*
YELLOW TINGED					
G.M	0.25*	0.25*	0.25*	0.25*	0.26*
S.M	.35*	.40*	.35*	.50*	.39*
M.**	.50*	.50*	.50*	.63*	.52*
S.L.M	.90*	.90*	.85*	.88*	.88*
L.M	1.25*	1.25*	1.15*	1.25*	1.24*
YELLOW STAINED					
G.M	0.50*	0.55*	0.50*	0.50*	0.50*
S.M.**	.90*	.90*	.85*	.88*	.87*
M.**	1.25*	1.15*	1.15*	1.25*	1.22*
BLUE STAINED					
G.M.**	0.65*	0.60*	0.50*	0.63*	0.58*
S.M.**	1.00*	.80*	.85*	1.00*	.91*
M.**	1.25*	.90*	1.15*	1.25*	1.18*

**Grades not deliverable on contract.
*Off Middling. †On Middling.

Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA
(IN GREASE)

Fine delne	$0.18 – $0.19	¾ blood	$0.17 – .18
Fine clthg	.15 – .16	¼ blood	.16 – .17
½ blood	.18 – .19		

TEXAS AND CALIFORNIA
(CLEAN BASIS)

Texas, 12 months	$0.43 – .45
California, Northern	.39 – .41

PULLED—EASTERN (CLEAN BASIS)

A A	$0.46 – $0.48	B-Super	$0.41 – 0.43
A-Super	.43 – .45	C-Super	.35 – .38

MONTANA, IDAHO AND WYOMING
(CLEAN BASIS)

Staple fine	$0.44 – .46
Staple ½ bld	.43 – .44
Fine and fine medium	.44 – .45
¼ blood	.38 – .40
⅜ blood	.33 – .35

MOHAIR—DOMESTIC

Best carding	.18 – .20
Best combing	.23 – .25

MOHAIR FOREIGN (IN BOND)

Turkey fair, average	$0.17 – 0.21
Cape firsts	.18 – .21

FOREIGN CLOTHING AND COMBING
(CLEAN BASIS IN BOND)

Australia:	
70s	$0.36 – 0.37
64s	.28 – .30
58s-60s	.25 – .27

(IN GREASE)

Montevideo:	
58s-60s	$0.15 – .16
56s	.14 – .15
50s	.13 – .14
Buenos Aires:	
4s, 40-44s	$0.09 – .10
5s, 36-40s	.08 – .09

FOREIGN CARPET (GREASE BASIS IN BOND)

Aleppo washed	$0.13 – 0.14
China: Combing No. 1	.10 – .11
China Filling Fleece	.09 – .10
Szechuen ass't	.10 – .11
Cordova	.08 – .09
Scotch black face (nominal)	nominal
East India: Kandahar	.13 – .14
Vican'r	.15 – .16
Joria	.15 – .16

Worsted Yarns

ENGLISH SYSTEM WEAVING

2-20s 36s	$0.67½ – .70
2-24s 40s	– .80
2-26s 44s	.80 – .82½
2-28s 46s	.85 – .87½
2-30s 48s	.90 – .92½
2-32s 50s	.92½ – .95
2-30s 64s fancy mixes	1.15 – 1.17½

(Single yarns 5c. less than above)

2-36s 58s	1.00 – 1.02½
2-40s, 60s	1.10 – 1.12½
2-40s, 64s	1.12½ – 1.17½
2-50s, 66s	1.27½ – 1.30
2-60s, 70s	1.65 – 1.70

ENGLISH SYSTEM KNITTING

2-20s, 44s in oil	– .60
2-20s, 48s in oil	.62½ – .65
2-20s, 50s in oil	.65 – .67½
2-20s, 56s in oil	.77½ – .80
2-20s, 60s in oil	.95 – .97½
2-20s, 64s in oil	1.02½ – 1.05
1-18s, 48s dyed	.82½ – .85
1-18s, 50s dyed	.85 – .87½

(Oil yarns 17½c. less)

FRENCH SYSTEM

1-20s, 58s	.87½ – .92½
1-20s, 60s	1.00 – 1.02½
1-18s, 64s, dyed	1.20 – 1.22½
1-26s, 64s	.97½ – 1.00
1-30s, 64s, Warp	1.07½ – 1.10
2-30s, 64s, Fancy mixes	1.17½ – 1.20
2-40s, 64s, Zephyrs	1.17½ – 1.20
1-50s, 66s	1.35 – 1.37½
2-50s, 66s	1.42½ – 1.45
2-60s, 70s domestic	1.80 – 1.85
1-60s, 70s, Australian	1.60 – 1.70
2-60s, 70s, Australian	1.77½ – 1.87½

FRENCH SPUN MERINO WHITE

1-30s, 50-50-58s on cops	.87½ – .90
1-40s, 50-50-60s on cops	.95 – .97½
1-40s, 50-50-64s on cops	.97½ – 1.00
1-40s, 50-50-64s Australian cops	1.10 – 1.15

Underwear mixes, 3 to 5c., Solid color, 35c. additional.

New York Top Futures

	Closed May 4	For Week – High	For Week – Low	Closed May 10	Net Ch'ge
May	55.50	55.50	55.50	55.50	.....
June	56.00	56.00	56.00	56.00	.....
July	56.00	56.00	55.50	56.00	.....
August	56.00	56.00	55.50	56.00	.....
September	56.50	56.50	56.50	56.50	.....
October	56.50	56.50	56.50	56.50	.....
November	56.50	56.50	56.50	56.50	.....
December	57.00	57.00	56.80	56.80	—0.20
January	57.50	57.50	57.10	57.10	—0.40
February	57.70	58.00	57.50	57.50	—0.20
March	58.00	58.00	57.50	57.50	—0.50

Tops and Noils

TOPS—BOSTON
(Nominal)

Fine (64-66s)	$0.66 – .68
Half-blood (60-62s)	.62 – .65
High ¾ blood (58s)	.55 – .57
Aver. ¾ blood (56s)	.53 – .55
Low ¾ blood	.50 – .52
High ½ blood (50s)	.48 – .50
46s S. A. and N. Z.	.48 – .50
44s S. A. and N. Z.	.44 – .46
40s S. A. and N. Z.	.41 – .43

TOPS — BRADFORD, ENG. (May 7)

Fine (70s)	23½d	¾ bld. (56s)	17 d
Fine (64s)	22 d	½ bld. (50s)	12 d
½ bld. (60s)	21 d	Cross-bred (46s)	9 d

NOILS — BOSTON

Fine	$0.36 – $0.38	High ¼ bld.	$0.26 – $0.28
Half-bld	.32 – .34	Low noils	.20 – .23
Aver. ¾ bld.	.28 – .30	Medium colored	.18 – .20
Fine colored	.23 – .28		

Wool Substitutes

WOOL WASTE

Lap, fine white	$0.53 – .55
Lap, fine colored	.40 – .43
Hard ends, fine white	.40 – .42
Hard ends, ¼ blood white	.27 – .30
Hard ends, fine colred	.18 – .20
Hard ends, medium colored	.13 – .15
Card, fine white	.23 – .25
Burr, fine carbonized	.24 – .26

OLD WOOLEN RAGS (GRADED FOR MFRS.)

Merinos, coarse light	$0.04½ – 0.05
Merinos, fine dark	.02½ – .03
Merinos, fine light	.08½ – .09
Serges, blue	.03½ – .04
Serges, black	.03½ – .04
Serges, red	.06 – .07
Knit, white	.19 – .20
Knit, red	.07½ – .08½
Knit, light hoods	.08½ – .09½
Worsted, light	.03½ – .04
Worsted, blue	.04 – .05
Worsted, black	.04 – .05

Silk Yarns

THROWN SILK (60 day basis)
Prices Nominal

Japan organzine, 2 thd. spec. gd. XX sk. 85%	$2.55
Japan organzine, 2 thd. grand sk. 83%	2.45
Japan organzine, 2 thd. sp. crack. sk. 81%	2.35
Japan crepe, 3 thd. gd. XX bob. 83%	2.25
Japan crepe, 3 thd. sp. crack. bob. 81%	2.10
Canton crepe, 3 and 4 thd. 14/16 on bobbins	1.75
Hosiery tram, 3 thd. Japan 90%	3 20
Hosiery tram 5 thd, Japan, 85%	2.30
Hosiery tram, crack XX 78%	2.15

SPUN SILK YARNS (Terms: net 30)

40/2	$3.10	60/2	$3.35
54/2	3.30	62/1	2.35

Raw Silk

(60 Day Terms. Spot Goods)
Prices Nominal

	13/15 White	20/22 White	20/22 Yellow
Super Grand, 87%	$1.70	$1.50	$1.50
Special Grand, 85%	1.60	1.40	1.40
Grand XX, 83%	1.50	1.35	1.35
Special Crack, 81%	1.40	1.30	1.30
Crack XX, 78%	1.35	1.25	1.25
Extra Extra, 73%	1.30	....	....
Best Extra, 68%	1.20	....	....

Canton filature, new style, 14/16	$1.10
Canton filature, new style, 20/22	1.00
Tussah filature, 8 cocoon	.60

NATIONAL RAW SILK EXCHANGE

	Close May 4	For the Week High	For the Week Low	Close May 10	Net Ch'ge
May	1.34	1.34	1.23	1.24	—0.10
June	1.36	1.36	1.24	1.24	—0.12
July	1.36	1.36	1.25	1.25	—0.11
August	1.38	1.38	1.27	1.27	—0.11
September	1.40	1.40	1.28	1.29	—0.11
October	1.40	1.40	1.28	1.29	—0.11
November	1.40	1.40	1.28	1.29	—0.11
December	1.40	1.40	1.28	1.29	—0.11

Total number of bales, 2.330. Total approximate value, $449,340.50. Trading unit cracks XX13/15 white 78%.

Domestic Rayon

VISCOSE PROCESS

enier	Filament		First	Second
30	8	.....	$2.25	... .
50	12-18	.....	1.35	$1.25
75	18-30	.....	1.20	1.10
100	18-40	.....	1.00	.90
125	36-50	.....	.90	.80
150	30	.....	.72	.70
150	24-44	.....	.75	.72
150	60	.....	.85	.82
150	75-90	.....	.85	.82
170	24-27	.....	.75	.72
170	60	.....	.85	.82
200	30-42	.....	.75	.72
300	42-62	.....	.63	.60
450	42-72	.....	63	.60
600	72-96	.....	.63	.60
900	100-144	.....	.63	.60

NITRO-CELLULOSE PROCESS

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
75	$1.35	$1.25	150	$0.75	$0.72
100	1.05	.95	175	.75	.72
125	.95	.85			

CUPRAMMONIUM PROCESS

Denier	Filament	Price	Denier	Filament	Price
15	24	$3.10	75	60	$1.30
25	24	2.85	80	60	1.30
30	24	2.60	100	75	1.10
40	30	1.70	120	90	1.00
52	30	1.50	150	112	.90
65	45	1.40	180	135	.87

ACETATE PROCESS

Denier	Price	Denier	Price
45	$1.60	125	$1.10
60	1.50	150	1.00
75	1.40	300	1.00
100	1.30		

Rayon Waste

Open bleached waste	$0.13 – $0.14
Open bleached waste	.10½
Bleached thread waste (mfs.)	.09
Bleached thread waste (misc.)	.06 – .07
Colored thread waste	.03 – .04
Colored clips	.03 – .04

CONVERTED RAYON WASTE

Bleached tops	$0.30 – $0.32½
Unbleached tops	.27 – .28
Bleached noils	.11
Unbleached noils	.09½
Bleached garnetts	.12
Unbleached garnetts	.13
Colored garnetts	.10 – .11

Silk Waste

Kibizzo Kakai Grand XX	0.50
Kibizzo Kakai Triple Extra	.44
Frison Grand Double	.49
Pierced Cocoons	.50

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2—REDUCED SEDIMENT or residue. Especially designed equipment has resulted in the elimination of practically all sediment—which means smoother, cleaner size. Try a "creaming" test.

3—ABSENCE OF SOLUBLE SUBSTANCES which have no starch value. By additional washings, soluble impurities have been removed from the new Eagle Starch.

4—CLEANSING OF THE AIR used for drying starch is an innovation. In manufacturing the new Eagle Starch, the finest particles of dust and dirt that are in the air are removed prior to using this air for drying Eagle.

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For best results, always be sure that starch is thoroughly "creamed" by stirring with cold water before admitting steam. For further information, please write

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